

R version 3.6.1 (2019-07-05) -- "Action of the Toes"
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Platform: x86_64-apple-darwin15.6.0 (64-bit)

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Natural language support but running in an English locale

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[R.app GUI 1.70 (7684) x86_64-apple-darwin15.6.0]

2020-01-28 13:04:59.637 R[5132:621217] Antidote - Texteurs: Module texteur installé dans /Applications/R.app (org.R-project.R)

```
> #####  
> #JF GODBOUT MANUSCRIPT##  
> #CHAPTER 7#####  
> #September 7, 2018#####  
> #####  
> #Figure 7.1#####  
> #####  
>  
> #####  
> #Figure 7.1: The Influence of Catholics/Methodists in the District and Liberal/Conservative Vote Share#  
> #####  
>  
> rm(list=ls())  
>  
> library(mfx);library(car);library(ggplot2)  
Loading required package: sandwich  
Loading required package: lmtest  
Loading required package: zoo
```

Attaching package: 'zoo'

The following objects are masked from 'package:base':

as.Date, as.Date.numeric

```
Loading required package: MASS  
Loading required package: betareg  
Loading required package: carData  
>  
> titirve1 <- read.csv("~/Dropbox/Canada-Manuscript/Data-Final/Elections-1867-2015.csv",header=TRUE)  
> titirve2 <- read.csv("~/Dropbox/Canada-Manuscript/Data-Final/census-info.csv",header=TRUE)  
> titirve2 <- titirve2[,-1]  
>  
> dat <- merge(titirve1,titirve2,by=c('Riding.code','Term'))  
>  
> dat <- subset(dat,dat$Parliament.no.x < 18)  
>  
> #####  
> #7.1.1 Add 1953 to 1956#  
> #####  
>  
> #Adding 53-65  
>  
> data1 <- read.csv("~/Dropbox/Canada-Manuscript/Data-Final/Election-1949.csv", header=TRUE)  
> data2 <- read.csv("~/Dropbox/Canada-Manuscript/Data-Final/Election-1953-1965.csv", header=TRUE)  
>  
> cath1 <- data1$ROMNCATH  
> cath2 <- data2$ROMNCATH
```

```

> cath1 <- cath1/100
> cath2 <- cath2/100
>
> meth1 <- data1$UNITEDCH
> meth1 <- meth1/100
> meth2 <- data2$UNITEDCH
> meth2 <- meth2/100
>
> l49 <- data1$LIBERAL
> lib1 <- l49/100
> l53 <- data2$LIBERL08 #53
> l57 <- data2$LIBERL09 #57
> l58 <- data2$LIBERL10 #58
> l62 <- data2$LIBERL11 #62
> l63 <- data2$LIBERL12 #63
> l65 <- data2$LIBERL13 #65
> lib2 <- c(l53,l57,l58,l62,l63,l65)
> lib2 <- lib2/100
>
> c49 <- data1$CONSERV
> cons1 <- c49/100
> c53 <- data2$CONSRV08
> c57 <- data2$CONSRV09
> c58 <- data2$CONSRV10
> c62 <- data2$CONSRV11
> c63 <- data2$CONSRV12
> c65 <- data2$CONSRV13
> cons2 <- c(c53,c57,c58,c62,c63,c65)
> cons2 <- cons2/100
>
> par121 <- 1:length(data1$PROVNC01)/1:length(data1$PROVNC01) * 21
> par122 <- 1:length(data2$PROVNC01)/1:length(data2$PROVNC01) * 22
> par123 <- 1:length(data2$PROVNC01)/1:length(data2$PROVNC01) * 23
> par124 <- 1:length(data2$PROVNC01)/1:length(data2$PROVNC01) * 24
> par125 <- 1:length(data2$PROVNC01)/1:length(data2$PROVNC01) * 25
> par126 <- 1:length(data2$PROVNC01)/1:length(data2$PROVNC01) * 26
> par127 <- 1:length(data2$PROVNC01)/1:length(data2$PROVNC01) * 27
> par12 <- c(par122,par123,par124,par125,par126,par127)
> par11 <- par121
>
> dat60 <- data.frame(lib2,cons2,cath2,meth2,par12)
> dat50 <- data.frame(lib1,cons1,cath1,meth1,par11)
>
> colnames(dat60) <- c("lib","cons","cath","meth","par1")
> colnames(dat50) <- c("lib","cons","cath","meth","par1")
>
> #analysis
> mod1a <- cons ~ cath
> mod1b <- cons ~ meth
>
> mod2a <- lib ~ cath
> mod2b <- lib ~ meth
>
> #cons.cath
> model <- mod1a
> m21 <- lm(model,data=dat50[dat50$par1==21,],)
> m22 <- lm(model,data=dat60[dat60$par1==22,],)
> m23 <- lm(model,data=dat60[dat60$par1==23,],)
> m24 <- lm(model,data=dat60[dat60$par1==24,],)
> m25 <- lm(model,data=dat60[dat60$par1==25,],)
> m26 <- lm(model,data=dat60[dat60$par1==26,],)
> m27 <- lm(model,data=dat60[dat60$par1==27,],)
>
> summary(m21)

```

Call:
lm(formula = model, data = dat50[dat50\$par1 == 21,])

Residuals:

	Min	1Q	Median	3Q	Max
	-0.32216	-0.13765	0.03548	0.11864	0.28177

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.33811    0.01549  21.823 < 2e-16 ***
cath        -0.11286    0.02833   -3.984 8.83e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1515 on 257 degrees of freedom
Multiple R-squared:  0.05817,
Adjusted R-squared:  0.0545
F-statistic: 15.87 on 1 and 257 DF,  p-value: 8.831e-05
```

```
> nobs(m21)
[1] 259
> summary(m22)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 22, ])
```

```
Residuals:
      Min       1Q   Median       3Q      Max
-0.31176 -0.12276  0.02458  0.12510  0.33147
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.31717    0.01777  17.850 <2e-16 ***
cath        -0.03734    0.03154   -1.184  0.237
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.162 on 259 degrees of freedom
Multiple R-squared:  0.005384,
Adjusted R-squared:  0.001544
F-statistic: 1.402 on 1 and 259 DF,  p-value: 0.2375
```

```
> nobs(m22)
[1] 261
> summary(m23)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 23, ])
```

```
Residuals:
      Min       1Q   Median       3Q      Max
-0.39832 -0.13362  0.03922  0.13525  0.30466
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.44566    0.01760  25.326 < 2e-16 ***
cath        -0.14933    0.03123   -4.781 2.92e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1604 on 259 degrees of freedom
Multiple R-squared:  0.08111,
Adjusted R-squared:  0.07756
F-statistic: 22.86 on 1 and 259 DF,  p-value: 2.923e-06
```

```
> nobs(m23)
[1] 261
> summary(m24)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 24, ])
```

```
Residuals:
      Min       1Q   Median       3Q      Max
-0.33111 -0.06390  0.01885  0.07376  0.18246
```

```
Coefficients:
```

```
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.58214    0.01075  54.154 < 2e-16 ***
cath         -0.10816    0.01908  -5.669 3.82e-08 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.09801 on 259 degrees of freedom
Multiple R-squared:  0.1104,
Adjusted R-squared:  0.1069
F-statistic: 32.14 on 1 and 259 DF,  p-value: 3.825e-08
```

```
> nobs(m24)
[1] 261
> summary(m25)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 25, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.287773 -0.072484  0.008688  0.082435  0.293521
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.45307    0.01152  39.321 < 2e-16 ***
cath         -0.15837    0.02045  -7.744 2.18e-13 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1051 on 259 degrees of freedom
Multiple R-squared:  0.188,
Adjusted R-squared:  0.1849
F-statistic: 59.97 on 1 and 259 DF,  p-value: 2.176e-13
```

```
> nobs(m26)
[1] 261
> summary(m26)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 26, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.31790 -0.09544 -0.01508  0.09444  0.31750
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.46624    0.01384  33.68 <2e-16 ***
cath         -0.27751    0.02457 -11.30 <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1262 on 259 degrees of freedom
Multiple R-squared:  0.33,
Adjusted R-squared:  0.3275
F-statistic: 127.6 on 1 and 259 DF,  p-value: < 2.2e-16
```

```
> nobs(m26)
[1] 261
> summary(m27)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 27, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.34279 -0.10103 -0.00789  0.09909  0.41742
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.43587    0.01496  29.137 < 2e-16 ***
```

```

cath      -0.21694    0.02655   -8.171 1.36e-14 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1364 on 259 degrees of freedom
Multiple R-squared:  0.2049,
Adjusted R-squared:  0.2019
F-statistic: 66.76 on 1 and 259 DF, p-value: 1.364e-14

```

```

> nobs(m27)
[1] 261
>
> mm21 <- coeftest(m21, vcov = vcovHAC(m21))
> mm21

```

t test of coefficients:

```

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.338114   0.021994  15.373 < 2.2e-16 ***
cath         -0.112859   0.033881  -3.331 0.0009924 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm22 <- coeftest(m22, vcov = vcovHAC(m22))
> mm22

```

t test of coefficients:

```

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.317174   0.023035  13.7690 <2e-16 ***
cath         -0.037344   0.033525  -1.1139  0.2663
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm23 <- coeftest(m23, vcov = vcovHAC(m23))
> mm23

```

t test of coefficients:

```

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.445657   0.029926  14.8922 < 2.2e-16 ***
cath         -0.149332   0.042092  -3.5478 0.0004611 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm24 <- coeftest(m24, vcov = vcovHAC(m24))
> mm24

```

t test of coefficients:

```

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.582143   0.015351  37.9214 < 2.2e-16 ***
cath         -0.108160   0.024835  -4.3552 1.916e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm25 <- coeftest(m25, vcov = vcovHAC(m25))
> mm25

```

t test of coefficients:

```

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.453072   0.016701  27.1280 < 2.2e-16 ***
cath         -0.158369   0.025495  -6.2118 2.076e-09 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm26 <- coeftest(m26, vcov = vcovHAC(m26))
> mm26

```

t test of coefficients:

```

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.466244   0.018891  24.681 < 2.2e-16 ***
cath         -0.277513   0.027477 -10.100 < 2.2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm27 <- coefest(m27, vcov = vcovHAC(m27))
> mm27

```

t test of coefficients:

```

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.435870   0.021400  20.3679 < 2.2e-16 ***
cath         -0.216941   0.031839  -6.8137 6.637e-11 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

>
> coef <- mm21[2,1]
> se <- mm21[2,2]
> conf21 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conf21 <- c(conf21,coef,"21st (1949-1953)")
> coef <- mm22[2,1]
> se <- mm22[2,2]
> conf22 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conf22 <- c(conf22,coef,"22th (1953-1957)")
> coef <- mm23[2,1]
> se <- mm23[2,2]
> conf23 <- coef + c(-1,1)*se*qt(0.975, m23$df.residual)
> conf23 <- c(conf23,coef,"23th (1958)")
> coef <- mm24[2,1]
> se <- mm24[2,2]
> conf24 <- coef + c(-1,1)*se*qt(0.975, m24$df.residual)
> conf24 <- c(conf24,coef,"24th (1958-1962)")
> coef <- mm25[2,1]
> se <- mm25[2,2]
> conf25 <- coef + c(-1,1)*se*qt(0.975, m25$df.residual)
> conf25 <- c(conf25,coef,"25th (1962)")
> coef <- mm26[2,1]
> se <- mm26[2,2]
> conf26 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conf26 <- c(conf26,coef,"26th (1963-1965)")
> coef <- mm27[2,1]
> se <- mm27[2,2]
> conf27 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conf27 <- c(conf27,coef,"27th (1965-1968)")
>
> cons.cath1 <- rbind(conf27,conf26,conf25,conf24,conf23,conf22,conf21)
>
> #cons.meth
> model <- mod1b
>
> m21 <- lm(model,data=dat50[dat50$parl==21,],)
> m22 <- lm(model,data=dat60[dat60$parl==22,],)
> m23 <- lm(model,data=dat60[dat60$parl==23,],)
> m24 <- lm(model,data=dat60[dat60$parl==24,],)
> m25 <- lm(model,data=dat60[dat60$parl==25,],)
> m26 <- lm(model,data=dat60[dat60$parl==26,],)
> m27 <- lm(model,data=dat60[dat60$parl==27,],)
>
> summary(m21)

```

```

Call:
lm(formula = model, data = dat50[dat50$parl == 21, ])

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.36620 -0.13719  0.03577  0.10684  0.28651

```

Coefficients:

```
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.21653    0.01596  13.569 < 2e-16 ***
meth        0.34329    0.06182   5.553 6.98e-08 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1475 on 257 degrees of freedom
Multiple R-squared:  0.1071,
Adjusted R-squared:  0.1037
F-statistic: 30.84 on 1 and 257 DF,  p-value: 6.98e-08
```

```
> nobs(m21)
[1] 259
> summary(m22)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 22, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.33198 -0.12697  0.03348  0.12325  0.31423
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.27314    0.01732  15.774 <2e-16 ***
meth        0.13192    0.06999   1.885  0.0606 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1613 on 259 degrees of freedom
Multiple R-squared:  0.01353,
Adjusted R-squared:  0.009721
F-statistic: 3.552 on 1 and 259 DF,  p-value: 0.06058
```

```
> nobs(m22)
[1] 261
> summary(m23)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 23, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.36774 -0.13955  0.03819  0.13177  0.28742
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.30449    0.01711  17.792 < 2e-16 ***
meth        0.35481    0.06918   5.129 5.71e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1595 on 259 degrees of freedom
Multiple R-squared:  0.0922,
Adjusted R-squared:  0.0887
F-statistic: 26.31 on 1 and 259 DF,  p-value: 5.713e-07
```

```
> nobs(m23)
[1] 261
> summary(m24)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 24, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.33070 -0.05723  0.01673  0.06965  0.18393
```

```
Coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.47800    0.01037  46.080 < 2e-16 ***
```

```

meth          0.26637    0.04193    6.353 9.46e-10 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.09665 on 259 degrees of freedom
Multiple R-squared:  0.1348,
Adjusted R-squared:  0.1315
F-statistic: 40.36 on 1 and 259 DF,  p-value: 9.462e-10

> nobs(m24)
[1] 261
> summary(m25)

```

```

Call:
lm(formula = model, data = dat60[dat60$par1 == 25, ])

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.29572 -0.07109  0.00506  0.07577  0.32165

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.30385    0.01111  27.339 < 2e-16 ***
meth         0.37389    0.04492   8.323 4.98e-15 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Residual standard error: 0.1036 on 259 degrees of freedom
Multiple R-squared:  0.211,
Adjusted R-squared:  0.208
F-statistic: 69.27 on 1 and 259 DF,  p-value: 4.982e-15

```

```

> nobs(m26)
[1] 261
> summary(m26)

```

```

Call:
lm(formula = model, data = dat60[dat60$par1 == 26, ])

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.32914 -0.08336 -0.01762  0.08356  0.36573

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.20863    0.01335  15.63 <2e-16 ***
meth         0.63597    0.05397  11.78 <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Residual standard error: 0.1244 on 259 degrees of freedom
Multiple R-squared:  0.349,
Adjusted R-squared:  0.3465
F-statistic: 138.9 on 1 and 259 DF,  p-value: < 2.2e-16

```

```

> nobs(m26)
[1] 261
> summary(m27)

```

```

Call:
lm(formula = model, data = dat60[dat60$par1 == 27, ])

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.34516 -0.08823 -0.00691  0.09852  0.40633

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.23067    0.01437  16.049 <2e-16 ***
meth         0.51605    0.05810   8.883 <2e-16 ***
---

```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1339 on 259 degrees of freedom
Multiple R-squared: 0.2335,
Adjusted R-squared: 0.2306
F-statistic: 78.9 on 1 and 259 DF, p-value: < 2.2e-16

```
> nobs(m27)
[1] 261
>
> mm21 <- coeftest(m21, vcov = vcovHAC(m21))
> mm21
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.216529	0.016755	12.9232	< 2.2e-16 ***
meth	0.343291	0.083474	4.1126	5.27e-05 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm22 <- coeftest(m22, vcov = vcovHAC(m22))
> mm22
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.273143	0.014848	18.3963	<2e-16 ***
meth	0.131919	0.128411	1.0273	0.3052

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm23 <- coeftest(m23, vcov = vcovHAC(m23))
> mm23
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.30449	0.01831	16.6299	< 2.2e-16 ***
meth	0.35481	0.10886	3.2594	0.001266 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm24 <- coeftest(m24, vcov = vcovHAC(m24))
> mm24
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.478002	0.010918	43.7800	< 2.2e-16 ***
meth	0.266366	0.051015	5.2213	3.65e-07 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm25 <- coeftest(m25, vcov = vcovHAC(m25))
> mm25
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.303846	0.011924	25.4829	< 2.2e-16 ***
meth	0.373887	0.054668	6.8393	5.707e-11 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm26 <- coeftest(m26, vcov = vcovHAC(m26))
> mm26
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
--	----------	------------	---------	----------

```
(Intercept) 0.208632 0.014704 14.1884 < 2.2e-16 ***
meth        0.635974 0.064112 9.9197 < 2.2e-16 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm27 <- coeftest(m27, vcov = vcovHAC(m27))
> mm27
```

t test of coefficients:

```
          Estimate Std. Error t value Pr(>|t|)
(Intercept) 0.230670 0.015967 14.4468 < 2.2e-16 ***
meth        0.516049 0.073049 7.0644 1.487e-11 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
>
> coef <- mm21[2,1]
> se <- mm21[2,2]
> conf21 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conf21 <- c(conf21,coef,"21st (1949-1953)")
> coef <- mm22[2,1]
> se <- mm22[2,2]
> conf22 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conf22 <- c(conf22,coef,"22th (1953-1957)")
> coef <- mm23[2,1]
> se <- mm23[2,2]
> conf23 <- coef + c(-1,1)*se*qt(0.975, m23$df.residual)
> conf23 <- c(conf23,coef,"23th (1958)")
> coef <- mm24[2,1]
> se <- mm24[2,2]
> conf24 <- coef + c(-1,1)*se*qt(0.975, m24$df.residual)
> conf24 <- c(conf24,coef,"24th (1958-1962)")
> coef <- mm25[2,1]
> se <- mm25[2,2]
> conf25 <- coef + c(-1,1)*se*qt(0.975, m25$df.residual)
> conf25 <- c(conf25,coef,"25th (1962)")
> coef <- mm26[2,1]
> se <- mm26[2,2]
> conf26 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conf26 <- c(conf26,coef,"26th (1963-1965)")
> coef <- mm27[2,1]
> se <- mm27[2,2]
> conf27 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conf27 <- c(conf27,coef,"27th (1965-1968)")
>
> cons.meth1 <- rbind(conf27,conf26,conf25,conf24,conf23,conf22,conf21)
>
> #Libs
>
> #libs.cath
> model <- mod2a
> m21 <- lm(model,data=dat50[dat50$parl==21,],)
> m22 <- lm(model,data=dat60[dat60$parl==22,],)
> m23 <- lm(model,data=dat60[dat60$parl==23,],)
> m24 <- lm(model,data=dat60[dat60$parl==24,],)
> m25 <- lm(model,data=dat60[dat60$parl==25,],)
> m26 <- lm(model,data=dat60[dat60$parl==26,],)
> m27 <- lm(model,data=dat60[dat60$parl==27,],)
>
> summary(m21)
```

```
Call:
lm(formula = model, data = dat50[dat50$parl == 21, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.45119 -0.07376 -0.00285  0.06509  0.44789
```

```
Coefficients:
          Estimate Std. Error t value Pr(>|t|)
```

```
(Intercept) 0.41397 0.01188 34.836 <2e-16 ***
cath         0.20073 0.02173 9.238 <2e-16 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1162 on 257 degrees of freedom
Multiple R-squared: 0.2493,
Adjusted R-squared: 0.2464
F-statistic: 85.35 on 1 and 257 DF, p-value: < 2.2e-16
```

```
> nobs(m21)
[1] 259
> summary(m22)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 22, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.43998 -0.08309  0.00662  0.07930  0.42665
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 0.36381    0.01391   26.15 <2e-16 ***
cath         0.28384    0.02470   11.49 <2e-16 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1269 on 259 degrees of freedom
Multiple R-squared: 0.3378,
Adjusted R-squared: 0.3352
F-statistic: 132.1 on 1 and 259 DF, p-value: < 2.2e-16
```

```
> nobs(m22)
[1] 261
> summary(m23)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 23, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.27071 -0.07989 -0.01440  0.06529  0.62986
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 0.26346    0.01327   19.85 <2e-16 ***
cath         0.33444    0.02356   14.20 <2e-16 ***
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.121 on 259 degrees of freedom
Multiple R-squared: 0.4376,
Adjusted R-squared: 0.4354
F-statistic: 201.5 on 1 and 259 DF, p-value: < 2.2e-16
```

```
> nobs(m23)
[1] 261
> summary(m24)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 24, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.20133 -0.07322 -0.00308  0.05822  0.52277
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 0.20843    0.01154   18.06 <2e-16 ***
cath         0.28233    0.02049   13.78 <2e-16 ***
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1052 on 259 degrees of freedom
Multiple R-squared:  0.423,
Adjusted R-squared:  0.4208
F-statistic: 189.9 on 1 and 259 DF,  p-value: < 2.2e-16
```

```
> nobs(m24)
[1] 261
> summary(m25)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 25, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.35210 -0.09353  0.00580  0.08661  0.43895
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.33732    0.01369  24.646 < 2e-16 ***
cath         0.06814    0.02429   2.805  0.00541 **
---

```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1248 on 259 degrees of freedom
Multiple R-squared:  0.02949,
Adjusted R-squared:  0.02574
F-statistic: 7.869 on 1 and 259 DF,  p-value: 0.00541
```

```
> nobs(m26)
[1] 261
> summary(m26)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 26, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.29785 -0.08697  0.00532  0.09298  0.43683
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.36536    0.01372  26.639 < 2e-16 ***
cath         0.09657    0.02434   3.967 9.42e-05 ***
---

```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.125 on 259 degrees of freedom
Multiple R-squared:  0.05728,
Adjusted R-squared:  0.05364
F-statistic: 15.74 on 1 and 259 DF,  p-value: 9.424e-05
```

```
> nobs(m26)
[1] 261
> summary(m27)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 27, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.27770 -0.08681  0.00838  0.08857  0.38490
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.33241    0.01321  25.154 < 2e-16 ***
cath         0.14411    0.02345   6.144 3.02e-09 ***
---

```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.1205 on 259 degrees of freedom
Multiple R-squared: 0.1272,
Adjusted R-squared: 0.1238
F-statistic: 37.75 on 1 and 259 DF, p-value: 3.019e-09

```
> nobs(m27)
```

```
[1] 261
```

```
>
```

```
> mm21 <- coeftest(m21, vcov = vcovHAC(m21))
```

```
> mm21
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.413973	0.012903	32.0842	< 2.2e-16 ***
cath	0.200729	0.020819	9.6416	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm22 <- coeftest(m22, vcov = vcovHAC(m22))
```

```
> mm22
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.363807	0.016756	21.712	< 2.2e-16 ***
cath	0.283838	0.027843	10.194	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm23 <- coeftest(m23, vcov = vcovHAC(m23))
```

```
> mm23
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.263456	0.019664	13.398	< 2.2e-16 ***
cath	0.334445	0.027391	12.210	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm24 <- coeftest(m24, vcov = vcovHAC(m24))
```

```
> mm24
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.208431	0.023854	8.7378	3.028e-16 ***
cath	0.282332	0.028314	9.9715	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm25 <- coeftest(m25, vcov = vcovHAC(m25))
```

```
> mm25
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.337316	0.028874	11.6825	<2e-16 ***
cath	0.068143	0.040826	1.6691	0.0963 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm26 <- coeftest(m26, vcov = vcovHAC(m26))
```

```
> mm26
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.365363	0.027556	13.2587	< 2.2e-16 ***

```
cath      0.096569  0.034848  2.7711  0.005991 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm27 <- coeftest(m27, vcov = vcovHAC(m27))
> mm27
```

t test of coefficients:

```
          Estimate Std. Error t value Pr(>|t|)
(Intercept) 0.332405  0.023041 14.4266 < 2.2e-16 ***
cath         0.144106  0.031343  4.5977 6.685e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
>
> coef <- mm21[2,1]
> se <- mm21[2,2]
> conf21 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conf21 <- c(conf21,coef,"21st (1949-1953)")
> coef <- mm22[2,1]
> se <- mm22[2,2]
> conf22 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conf22 <- c(conf22,coef,"22th (1953-1957)")
> coef <- mm23[2,1]
> se <- mm23[2,2]
> conf23 <- coef + c(-1,1)*se*qt(0.975, m23$df.residual)
> conf23 <- c(conf23,coef,"23th (1958)")
> coef <- mm24[2,1]
> se <- mm24[2,2]
> conf24 <- coef + c(-1,1)*se*qt(0.975, m24$df.residual)
> conf24 <- c(conf24,coef,"24th (1958-1962)")
> coef <- mm25[2,1]
> se <- mm25[2,2]
> conf25 <- coef + c(-1,1)*se*qt(0.975, m25$df.residual)
> conf25 <- c(conf25,coef,"25th (1962)")
> coef <- mm26[2,1]
> se <- mm26[2,2]
> conf26 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conf26 <- c(conf26,coef,"26th (1963-1965)")
> coef <- mm27[2,1]
> se <- mm27[2,2]
> conf27 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conf27 <- c(conf27,coef,"27th (1965-1968)")
>
> lib.cath1 <- rbind(conf27,conf26,conf25,conf24,conf23,conf22,conf21)
>
> #libs.meth
> model <- mod2b
> m21 <- lm(model,data=dat50[dat50$parl==21,],)
> m22 <- lm(model,data=dat60[dat60$parl==22,],)
> m23 <- lm(model,data=dat60[dat60$parl==23,],)
> m24 <- lm(model,data=dat60[dat60$parl==24,],)
> m25 <- lm(model,data=dat60[dat60$parl==25,],)
> m26 <- lm(model,data=dat60[dat60$parl==26,],)
> m27 <- lm(model,data=dat60[dat60$parl==27,],)
>
> summary(m21)
```

```
Call:
lm(formula = model, data = dat50[dat50$parl == 21, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.46252 -0.07612  0.00290  0.07669  0.44406
```

```
Coefficients:
          Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.59162    0.01277  46.336 < 2e-16 ***
meth        -0.42791    0.04946  -8.652 5.62e-16 ***
---
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.118 on 257 degrees of freedom

Multiple R-squared: 0.2256,

Adjusted R-squared: 0.2225

F-statistic: 74.85 on 1 and 257 DF, p-value: 5.615e-16

```
> nobs(m21)
```

```
[1] 259
```

```
> summary(m22)
```

Call:

```
lm(formula = model, data = dat60[dat60$par1 == 22, ])
```

Residuals:

Min	1Q	Median	3Q	Max
-0.41713	-0.07960	0.00249	0.07976	0.39282

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.62148	0.01373	45.26	<2e-16 ***
meth	-0.62174	0.05551	-11.20	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1279 on 259 degrees of freedom

Multiple R-squared: 0.3263,

Adjusted R-squared: 0.3237

F-statistic: 125.5 on 1 and 259 DF, p-value: < 2.2e-16

```
> nobs(m22)
```

```
[1] 261
```

```
> summary(m23)
```

Call:

```
lm(formula = model, data = dat60[dat60$par1 == 23, ])
```

Residuals:

Min	1Q	Median	3Q	Max
-0.28532	-0.08297	-0.00985	0.06995	0.55474

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.56136	0.01352	41.52	<2e-16 ***
meth	-0.70434	0.05465	-12.89	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.126 on 259 degrees of freedom

Multiple R-squared: 0.3908,

Adjusted R-squared: 0.3884

F-statistic: 166.1 on 1 and 259 DF, p-value: < 2.2e-16

```
> nobs(m23)
```

```
[1] 261
```

```
> summary(m24)
```

Call:

```
lm(formula = model, data = dat60[dat60$par1 == 24, ])
```

Residuals:

Min	1Q	Median	3Q	Max
-0.26579	-0.06787	-0.00037	0.06729	0.50639

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.45908	0.01178	38.97	<2e-16 ***
meth	-0.59042	0.04761	-12.40	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1098 on 259 degrees of freedom
Multiple R-squared: 0.3725,
Adjusted R-squared: 0.3701
F-statistic: 153.8 on 1 and 259 DF, p-value: < 2.2e-16

```
> nobs(m24)
[1] 261
> summary(m25)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 25, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.35140 -0.08688  0.00037  0.08608  0.42006
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.40652    0.01329  30.585 < 2e-16 ***
meth         -0.18559    0.05373  -3.454 0.000644 ***
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.1238 on 259 degrees of freedom
Multiple R-squared: 0.04404,
Adjusted R-squared: 0.04035
F-statistic: 11.93 on 1 and 259 DF, p-value: 0.0006442

```
> nobs(m26)
[1] 261
> summary(m26)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 26, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.33971 -0.08661  0.00216  0.08968  0.41025
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.46265    0.01324  34.955 < 2e-16 ***
meth         -0.25914    0.05350  -4.844 2.19e-06 ***
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.1233 on 259 degrees of freedom
Multiple R-squared: 0.08306,
Adjusted R-squared: 0.07952
F-statistic: 23.46 on 1 and 259 DF, p-value: 2.195e-06

```
> nobs(m26)
[1] 261
> summary(m27)
```

```
Call:
lm(formula = model, data = dat60[dat60$par1 == 27, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.29155 -0.07661  0.00293  0.08655  0.38257
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.46870    0.01280  36.619 < 2e-16 ***
meth         -0.34272    0.05174  -6.624 2.01e-10 ***
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.1193 on 259 degrees of freedom
Multiple R-squared: 0.1449,

Adjusted R-squared: 0.1416
F-statistic: 43.88 on 1 and 259 DF, p-value: 2.007e-10

```
> nobs(m27)
[1] 261
```

```
> mm21 <- coeftest(m21, vcov = vcovHAC(m21))
> mm21
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.591617	0.011173	52.9491	< 2.2e-16 ***
meth	-0.427910	0.049509	-8.6432	5.951e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm22 <- coeftest(m22, vcov = vcovHAC(m22))
> mm22
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.621483	0.014602	42.5622	< 2.2e-16 ***
meth	-0.621740	0.068053	-9.1361	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm23 <- coeftest(m23, vcov = vcovHAC(m23))
> mm23
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.561364	0.016320	34.398	< 2.2e-16 ***
meth	-0.704336	0.072085	-9.771	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm24 <- coeftest(m24, vcov = vcovHAC(m24))
> mm24
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.459076	0.010331	44.4351	< 2.2e-16 ***
meth	-0.590416	0.066648	-8.8587	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm25 <- coeftest(m25, vcov = vcovHAC(m25))
> mm25
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.406520	0.022992	17.6812	< 2e-16 ***
meth	-0.185593	0.100030	-1.8554	0.06468 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm26 <- coeftest(m26, vcov = vcovHAC(m26))
> mm26
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.462653	0.017495	26.4453	< 2.2e-16 ***
meth	-0.259143	0.089989	-2.8797	0.004313 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

> mm27 <- coeftest(m27, vcov = vcovHAC(m27))
> mm27

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.468698   0.015596 30.0527 < 2.2e-16 ***
meth         -0.342718   0.076037 -4.5073 9.951e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

>
> coef <- mm21[2,1]
> se <- mm21[2,2]
> conf21 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conf21 <- c(conf21,coef,"21st (1949-1953)")
> coef <- mm22[2,1]
> se <- mm22[2,2]
> conf22 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conf22 <- c(conf22,coef,"22th (1953-1957)")
> coef <- mm23[2,1]
> se <- mm23[2,2]
> conf23 <- coef + c(-1,1)*se*qt(0.975, m23$df.residual)
> conf23 <- c(conf23,coef,"23th (1958)")
> coef <- mm24[2,1]
> se <- mm24[2,2]
> conf24 <- coef + c(-1,1)*se*qt(0.975, m24$df.residual)
> conf24 <- c(conf24,coef,"24th (1958-1962)")
> coef <- mm25[2,1]
> se <- mm25[2,2]
> conf25 <- coef + c(-1,1)*se*qt(0.975, m25$df.residual)
> conf25 <- c(conf25,coef,"25th (1962)")
> coef <- mm26[2,1]
> se <- mm26[2,2]
> conf26 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conf26 <- c(conf26,coef,"26th (1963-1965)")
> coef <- mm27[2,1]
> se <- mm27[2,2]
> conf27 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conf27 <- c(conf27,coef,"27th (1965-1968)")
>
> lib.meth1 <- rbind(conf27,conf26,conf25,conf24,conf23,conf22,conf21)
>
> #####
> #7.1.2 Conservatives 1867-1930#
> #####
>
> dat1 <- subset(dat,dat$Party=="Cons." | dat$Party=="Lib.-Cons." | dat$Party=="Gov")
>
> #Models
>
> m7.3a <- Percentage ~ percentage.catholic
> m7.3b <- Percentage ~ percentage.methodist
>
> #Catholics
>
> model <- m7.3a
>
> m1 <- lm(model,data=dat1[dat1$Parliament.no.x==1,],)
> m2 <- lm(model,data=dat1[dat1$Parliament.no.x==2,],)
> m3 <- lm(model,data=dat1[dat1$Parliament.no.x==3,],)
> m4 <- lm(model,data=dat1[dat1$Parliament.no.x==4,],)
> m5 <- lm(model,data=dat1[dat1$Parliament.no.x==5,],)
> m6 <- lm(model,data=dat1[dat1$Parliament.no.x==6,],)
> m7 <- lm(model,data=dat1[dat1$Parliament.no.x==7,],)
> m8 <- lm(model,data=dat1[dat1$Parliament.no.x==8,],)
> m9 <- lm(model,data=dat1[dat1$Parliament.no.x==9,],)
> m10 <- lm(model,data=dat1[dat1$Parliament.no.x==10,],)
> m11 <- lm(model,data=dat1[dat1$Parliament.no.x==11,],)
> m12 <- lm(model,data=dat1[dat1$Parliament.no.x==12,],)

```

```
> m13 <- lm(model,data=dat1[dat1$Parliament.no.x==13,],)
> m14 <- lm(model,data=dat1[dat1$Parliament.no.x==14,],)
> m15 <- lm(model,data=dat1[dat1$Parliament.no.x==15,],)
> m16 <- lm(model,data=dat1[dat1$Parliament.no.x==16,],)
>
> summary(m1)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 1, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.36835 -0.06518 -0.02710  0.03431  0.38965
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.53980    0.01982  27.242 <2e-16 ***
percentage.catholic 0.08038    0.03446   2.332  0.0217 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1237 on 97 degrees of freedom
(44 observations deleted due to missingness)
Multiple R-squared:  0.0531,
Adjusted R-squared:  0.04334
F-statistic: 5.44 on 1 and 97 DF, p-value: 0.02175
```

```
> nobs(m1)
[1] 99
> summary(m2)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 2, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.51927 -0.05380  0.00428  0.05523  0.45793
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.48774    0.02450  19.912 <2e-16 ***
percentage.catholic 0.05182    0.04185   1.238  0.218
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1569 on 105 degrees of freedom
(41 observations deleted due to missingness)
Multiple R-squared:  0.01439,
Adjusted R-squared:  0.005003
F-statistic: 1.533 on 1 and 105 DF, p-value: 0.2184
```

```
> nobs(m2)
[1] 107
> summary(m3)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 3, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.43005 -0.03135 -0.00287  0.03282  0.38655
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.506029    0.014358  35.244 <2e-16 ***
percentage.catholic 0.006754    0.026309   0.257  0.798
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.09983 on 118 degrees of freedom
(26 observations deleted due to missingness)
```

Multiple R-squared: 0.0005582,
Adjusted R-squared: -0.007912
F-statistic: 0.0659 on 1 and 118 DF, p-value: 0.7978

```
> nobs(m3)
[1] 120
> summary(m4)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 4, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.34847 -0.03795  0.00631  0.04581  0.43196
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.48973    0.01383   35.409 < 2e-16 ***
percentage.catholic 0.06857    0.02408    2.847  0.00493 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1151 on 177 degrees of freedom
(25 observations deleted due to missingness)
Multiple R-squared:  0.0438,
Adjusted R-squared:  0.03839
F-statistic: 8.107 on 1 and 177 DF, p-value: 0.004931
```

```
> nobs(m4)
[1] 179
> summary(m5)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 5, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.33222 -0.02432  0.02874  0.06266  0.21966
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.46620    0.01554   30.001 <2e-16 ***
percentage.catholic 0.06202    0.02629    2.359  0.0196 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1136 on 148 degrees of freedom
(49 observations deleted due to missingness)
Multiple R-squared:  0.03625,
Adjusted R-squared:  0.02973
F-statistic: 5.566 on 1 and 148 DF, p-value: 0.01962
```

```
> nobs(m5)
[1] 150
> summary(m6)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 6, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.39005 -0.02154  0.01932  0.05908  0.25376
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.49003    0.01096   44.727 <2e-16 ***
percentage.catholic -0.02409    0.02171   -1.109  0.268
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.111 on 221 degrees of freedom
```

```
(23 observations deleted due to missingness)
Multiple R-squared: 0.005537,
Adjusted R-squared: 0.001038
F-statistic: 1.231 on 1 and 221 DF, p-value: 0.2685
```

```
> nobs(m6)
[1] 223
> summary(m7)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 7, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.46241 -0.02355  0.02085  0.05783  0.28837
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.473996   0.011696  40.528 <2e-16 ***
percentage.catholic -0.008504   0.021138  -0.402  0.688
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1098 on 205 degrees of freedom
(66 observations deleted due to missingness)
Multiple R-squared: 0.0007889,
Adjusted R-squared: -0.004085
F-statistic: 0.1618 on 1 and 205 DF, p-value: 0.6879
```

```
> nobs(m7)
[1] 207
> summary(m8)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 8, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.33094 -0.03644  0.02183  0.05783  0.30556
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.44036   0.01030  42.760 <2e-16 ***
percentage.catholic 0.01595   0.01939   0.823  0.412
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.09757 on 204 degrees of freedom
(27 observations deleted due to missingness)
Multiple R-squared: 0.003305,
Adjusted R-squared: -0.00158
F-statistic: 0.6765 on 1 and 204 DF, p-value: 0.4117
```

```
> nobs(m8)
[1] 206
> summary(m9)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 9, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.38693 -0.02390  0.02249  0.05348  0.18560
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.480648   0.008806  54.582 < 2e-16 ***
percentage.catholic -0.064868   0.015728  -4.124 5.21e-05 ***
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.08643 on 228 degrees of freedom
(4 observations deleted due to missingness)
Multiple R-squared: 0.06943,
Adjusted R-squared: 0.06534
F-statistic: 17.01 on 1 and 228 DF, p-value: 5.212e-05

```
> nobs(m9)
[1] 230
> summary(m10)
```

Call:
lm(formula = model, data = dat1[dat1\$Parliament.no.x == 10,])

Residuals:

Min	1Q	Median	3Q	Max
-0.42350	-0.03011	0.01941	0.04819	0.19321

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.48366	0.01071	45.178	< 2e-16 ***
percentage.catholic	-0.06940	0.01773	-3.915	0.00013 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.0866 on 173 degrees of freedom
(59 observations deleted due to missingness)
Multiple R-squared: 0.08137,
Adjusted R-squared: 0.07606
F-statistic: 15.32 on 1 and 173 DF, p-value: 0.0001301

```
> nobs(m10)
[1] 175
> summary(m11)
```

Call:
lm(formula = model, data = dat1[dat1\$Parliament.no.x == 11,])

Residuals:

Min	1Q	Median	3Q	Max
-0.37874	-0.02835	0.00824	0.04642	0.22937

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.509999	0.009229	55.262	< 2e-16 ***
percentage.catholic	-0.104769	0.017518	-5.981	9.33e-09 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08854 on 212 degrees of freedom
(4 observations deleted due to missingness)
Multiple R-squared: 0.1444,
Adjusted R-squared: 0.1403
F-statistic: 35.77 on 1 and 212 DF, p-value: 9.329e-09

```
> nobs(m11)
[1] 214
> summary(m12)
```

Call:
lm(formula = model, data = dat1[dat1\$Parliament.no.x == 12,])

Residuals:

Min	1Q	Median	3Q	Max
-0.263710	-0.031987	0.004304	0.048462	0.243988

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.532580	0.008894	59.879	< 2e-16 ***
percentage.catholic	-0.069685	0.016774	-4.154	4.69e-05 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08646 on 218 degrees of freedom
(30 observations deleted due to missingness)
Multiple R-squared: 0.07336,
Adjusted R-squared: 0.06911
F-statistic: 17.26 on 1 and 218 DF, p-value: 4.687e-05

```
> nobs(m12)
[1] 220
> summary(m13)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 13, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.31582 -0.09122 -0.00353  0.08577  0.38198
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.72830    0.01258   57.88  <2e-16 ***
percentage.catholic -0.58689    0.02748  -21.36  <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.1204 on 199 degrees of freedom
(17 observations deleted due to missingness)
Multiple R-squared: 0.6962,
Adjusted R-squared: 0.6947
F-statistic: 456.1 on 1 and 199 DF, p-value: < 2.2e-16

```
> nobs(m13)
[1] 201
> summary(m14)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 14, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.302265 -0.080936  0.008924  0.087396  0.216693
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.39309    0.01224   32.104  < 2e-16 ***
percentage.catholic -0.18401    0.02641  -6.968  4.44e-11 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.1188 on 202 degrees of freedom
(12 observations deleted due to missingness)
Multiple R-squared: 0.1938,
Adjusted R-squared: 0.1898
F-statistic: 48.56 on 1 and 202 DF, p-value: 4.438e-11

```
> nobs(m14)
[1] 204
> summary(m15)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 15, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.35561 -0.07817  0.02065  0.08654  0.35948
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.51330    0.01399   36.700  < 2e-16 ***
percentage.catholic -0.17198    0.02731  -6.298  1.54e-09 ***
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1349 on 228 degrees of freedom  
(4 observations deleted due to missingness)
```

```
Multiple R-squared:  0.1482,
```

```
Adjusted R-squared:  0.1444
```

```
F-statistic: 39.66 on 1 and 228 DF,  p-value: 1.536e-09
```

```
> nobs(m15)
```

```
[1] 230
```

```
> summary(m16)
```

```
Call:
```

```
lm(formula = model, data = dat1[dat1$Parliament.no.x == 16, ])
```

```
Residuals:
```

```
      Min       1Q   Median       3Q      Max  
-0.306410 -0.074759  0.009656  0.079658  0.307985
```

```
Coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)  
(Intercept)      0.52933    0.01242  42.604 < 2e-16 ***  
percentage.catholic -0.21152    0.02411  -8.771 4.26e-16 ***  
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1193 on 227 degrees of freedom  
(11 observations deleted due to missingness)
```

```
Multiple R-squared:  0.2531,
```

```
Adjusted R-squared:  0.2498
```

```
F-statistic: 76.94 on 1 and 227 DF,  p-value: 4.262e-16
```

```
> nobs(m16)
```

```
[1] 229
```

```
>
```

```
> #
```

```
>
```

```
> mm1 <- coeftest(m1, vcov = vcovHAC(m1))
```

```
> mm1
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)  
(Intercept)      0.539804    0.015454  34.9295 < 2e-16 ***  
percentage.catholic 0.080376    0.035449   2.2674  0.02559 *  
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm2 <- coeftest(m2, vcov = vcovHAC(m2))
```

```
> mm2
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)  
(Intercept)      0.487742    0.020768  23.4855 < 2e-16 ***  
percentage.catholic 0.051821    0.047663   1.0872  0.2794  
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm3 <- coeftest(m3, vcov = vcovHAC(m3))
```

```
> mm3
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)  
(Intercept)      0.5060292    0.0136702  37.0171 < 2e-16 ***  
percentage.catholic 0.0067541    0.0295046   0.2289  0.8193  
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm4 <- coeftest(m4, vcov = vcovHAC(m4))
```

```
> mm4
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.489725   0.010986 44.5766 < 2.2e-16 ***
percentage.catholic 0.068573   0.023333  2.9389  0.003733 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm5 <- coefstest(m5, vcov = vcovHAC(m5))
> mm5
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.466197   0.016853 27.6631 < 2e-16 ***
percentage.catholic 0.062022   0.026362  2.3527  0.01996 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm6 <- coefstest(m6, vcov = vcovHAC(m6))
> mm6
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.490030   0.011317 43.2996 <2e-16 ***
percentage.catholic -0.024087   0.019001 -1.2677  0.2062
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm7 <- coefstest(m7, vcov = vcovHAC(m7))
> mm7
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.473996   0.012080 39.2385 <2e-16 ***
percentage.catholic -0.008504   0.019325 -0.4401  0.6604
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm8 <- coefstest(m8, vcov = vcovHAC(m8))
> mm8
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.440359   0.010095 43.6231 <2e-16 ***
percentage.catholic 0.015950   0.015404  1.0354  0.3017
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm9 <- coefstest(m9, vcov = vcovHAC(m9))
> mm9
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.480648   0.010198 47.1316 < 2.2e-16 ***
percentage.catholic -0.064868   0.016324 -3.9738 9.493e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm10 <- coefstest(m10, vcov = vcovHAC(m10))
> mm10
```

```
t test of coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
```

```
(Intercept)      0.483662   0.011638 41.5594 < 2.2e-16 ***
percentage.catholic -0.069397   0.019323 -3.5914 0.0004283 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm11 <- coeftest(m11, vcov = vcovHAC(m11))
> mm11
```

t test of coefficients:

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.5099992   0.0084128 60.6215 < 2.2e-16 ***
percentage.catholic -0.1047691   0.0186406 -5.6205 5.955e-08 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm12 <- coeftest(m12, vcov = vcovHAC(m12))
> mm12
```

t test of coefficients:

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.5325802   0.0097851 54.4276 < 2.2e-16 ***
percentage.catholic -0.0696849   0.0145910 -4.7759 3.283e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm13 <- coeftest(m13, vcov = vcovHAC(m13))
> mm13
```

t test of coefficients:

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.728298   0.013064  55.748 < 2.2e-16 ***
percentage.catholic -0.586892   0.023529 -24.944 < 2.2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm14 <- coeftest(m14, vcov = vcovHAC(m14))
> mm14
```

t test of coefficients:

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.393089   0.013820  28.4436 < 2.2e-16 ***
percentage.catholic -0.184008   0.023465 -7.8417 2.517e-13 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm15 <- coeftest(m15, vcov = vcovHAC(m15))
> mm15
```

t test of coefficients:

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.513296   0.016285 31.5200 < 2.2e-16 ***
percentage.catholic -0.171976   0.023827 -7.2178 7.788e-12 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm16 <- coeftest(m16, vcov = vcovHAC(m16))
> mm16
```

t test of coefficients:

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.529328   0.015371 34.4358 < 2.2e-16 ***
percentage.catholic -0.211519   0.027827 -7.6014 7.668e-13 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```

>
> #
>
> coef <- mm1[2,1]
> se <- mm1[2,2]
> conf1 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)
> conf1 <- c(conf1,coef,"1st (1867-1872)")
> coef <- mm2[2,1]
> se <- mm2[2,2]
> conf2 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)
> conf2 <- c(conf2,coef,"2nd (1872-1874)")
> coef <- mm3[2,1]
> se <- mm3[2,2]
> conf3 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)
> conf3 <- c(conf3,coef,"3rd (1874-1878)")
> coef <- mm4[2,1]
> se <- mm4[2,2]
> conf4 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)
> conf4 <- c(conf4,coef,"4th (1879-1882)")
> coef <- mm5[2,1]
> se <- mm5[2,2]
> conf5 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)
> conf5 <- c(conf5,coef,"5th (1883-1887)")
> coef <- mm6[2,1]
> se <- mm6[2,2]
> conf6 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conf6 <- c(conf6,coef,"6th (1887-1891)")
> coef <- mm7[2,1]
> se <- mm7[2,2]
> conf7 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conf7 <- c(conf7,coef,"7th (1891-1896)")
> coef <- mm8[2,1]
> se <- mm8[2,2]
> conf8 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conf8 <- c(conf8,coef,"8th (1896-1900)")
> coef <- mm9[2,1]
> se <- mm9[2,2]
> conf9 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conf9 <- c(conf9,coef,"9th (1901-1904)")
> coef <- mm10[2,1]
> se <- mm10[2,2]
> conf10 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conf10 <- c(conf10,coef,"10th (1905-1908)")
> coef <- mm11[2,1]
> se <- mm11[2,2]
> conf11 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conf11 <- c(conf11,coef,"11th (1909-1911)")
> coef <- mm12[2,1]
> se <- mm12[2,2]
> conf12 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
> conf12 <- c(conf12,coef,"12th (1911-1917)")
> coef <- mm13[2,1]
> se <- mm13[2,2]
> conf13 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)
> conf13 <- c(conf13,coef,"13th (1917-1921)")
> coef <- mm14[2,1]
> se <- mm14[2,2]
> conf14 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conf14 <- c(conf14,coef,"14th (1921-1925)")
> coef <- mm15[2,1]
> se <- mm15[2,2]
> conf15 <- coef + c(-1,1)*se*qt(0.975, m15$df.residual)
> conf15 <- c(conf15,coef,"15th (1926)")
> coef <- mm16[2,1]
> se <- mm16[2,2]
> conf16 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conf16 <- c(conf16,coef,"16th (1926-1930)")
>
> all1 <-
rbind(cons.cath1,conf16,conf15,conf14,conf13,conf12,conf11,conf10,conf9,conf8,conf7,conf6,conf5,conf4,conf3,conf2,conf1)

```

```

>
> #Methodists
>
> model <- m7.3b
>
> m1 <- lm(model, data=dat1[dat1$Parliament.no.x==1,],)
> m2 <- lm(model, data=dat1[dat1$Parliament.no.x==2,],)
> m3 <- lm(model, data=dat1[dat1$Parliament.no.x==3,],)
> m4 <- lm(model, data=dat1[dat1$Parliament.no.x==4,],)
> m5 <- lm(model, data=dat1[dat1$Parliament.no.x==5,],)
> m6 <- lm(model, data=dat1[dat1$Parliament.no.x==6,],)
> m7 <- lm(model, data=dat1[dat1$Parliament.no.x==7,],)
> m8 <- lm(model, data=dat1[dat1$Parliament.no.x==8,],)
> m9 <- lm(model, data=dat1[dat1$Parliament.no.x==9,],)
> m10 <- lm(model, data=dat1[dat1$Parliament.no.x==10,],)
> m11 <- lm(model, data=dat1[dat1$Parliament.no.x==11,],)
> m12 <- lm(model, data=dat1[dat1$Parliament.no.x==12,],)
> m13 <- lm(model, data=dat1[dat1$Parliament.no.x==13,],)
> m14 <- lm(model, data=dat1[dat1$Parliament.no.x==14,],)
> m15 <- lm(model, data=dat1[dat1$Parliament.no.x==15,],)
> m16 <- lm(model, data=dat1[dat1$Parliament.no.x==16,],)
>
> summary(m1)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 1, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.35703 -0.05811 -0.02855  0.03747  0.40003

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.59727    0.01859  32.123 <2e-16 ***
percentage.methodist -0.11921    0.07587  -1.571    0.119
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1255 on 97 degrees of freedom
(44 observations deleted due to missingness)
Multiple R-squared:  0.02482,
Adjusted R-squared:  0.01477
F-statistic: 2.469 on 1 and 97 DF,  p-value: 0.1194

> nobs(m1)
[1] 99
> summary(m2)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 2, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.49095 -0.03981  0.00014  0.06559  0.48624

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.510351    0.021743  23.472 <2e-16 ***
percentage.methodist 0.007467    0.096092   0.078    0.938
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1581 on 105 degrees of freedom
(41 observations deleted due to missingness)
Multiple R-squared:  5.75e-05,
Adjusted R-squared: -0.009466
F-statistic: 0.006038 on 1 and 105 DF,  p-value: 0.9382

> nobs(m2)
[1] 107
> summary(m3)

```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 3, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.41945 -0.03147 -0.00500  0.03714  0.37617

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.50169   0.01357  36.980 <2e-16 ***
percentage.methodist 0.04149   0.05812   0.714  0.477
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.09964 on 118 degrees of freedom
(26 observations deleted due to missingness)
Multiple R-squared:  0.0043,
Adjusted R-squared: -0.004138
F-statistic: 0.5096 on 1 and 118 DF,  p-value: 0.4767
```

```
> nobs(m3)
[1] 120
> summary(m4)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 4, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.32267 -0.03175 -0.00137  0.04123  0.45619

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.53223   0.01264  42.09 <2e-16 ***
percentage.methodist -0.06833   0.05340  -1.28  0.202
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1172 on 177 degrees of freedom
(25 observations deleted due to missingness)
Multiple R-squared:  0.009165,
Adjusted R-squared:  0.003567
F-statistic: 1.637 on 1 and 177 DF,  p-value: 0.2024
```

```
> nobs(m4)
[1] 179
> summary(m5)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 5, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.33075 -0.03022  0.02450  0.05726  0.24615

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.49783   0.01278  38.966 <2e-16 ***
percentage.methodist -0.01453   0.05623  -0.258  0.796
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1157 on 148 degrees of freedom
(49 observations deleted due to missingness)
Multiple R-squared:  0.000451,
Adjusted R-squared: -0.006303
F-statistic: 0.06677 on 1 and 148 DF,  p-value: 0.7965
```

```
> nobs(m5)
[1] 150
```

```
> summary(m6)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 6, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.39230 -0.03026  0.01398  0.05578  0.25420
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.45854    0.01158  39.607 <2e-16 ***
percentage.methodist 0.11588    0.04595   2.522  0.0124 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1097 on 221 degrees of freedom
(23 observations deleted due to missingness)
Multiple R-squared:  0.02797,
Adjusted R-squared:  0.02357
F-statistic: 6.359 on 1 and 221 DF, p-value: 0.01238
```

```
> nobs(m6)
```

```
[1] 223
```

```
> summary(m7)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 7, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.46281 -0.02342  0.01991  0.05825  0.28968
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.46382    0.01131  41.028 <2e-16 ***
percentage.methodist 0.03692    0.04666   0.791   0.43
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1097 on 205 degrees of freedom
(66 observations deleted due to missingness)
Multiple R-squared:  0.003045,
Adjusted R-squared: -0.001818
F-statistic: 0.6262 on 1 and 205 DF, p-value: 0.4297
```

```
> nobs(m7)
```

```
[1] 207
```

```
> summary(m8)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 8, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.33965 -0.03974  0.02598  0.05626  0.29685
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.44172    0.01035  42.67 <2e-16 ***
percentage.methodist 0.02715    0.04239   0.64  0.523
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.09763 on 204 degrees of freedom
(27 observations deleted due to missingness)
Multiple R-squared:  0.002006,
Adjusted R-squared: -0.002886
F-statistic: 0.4101 on 1 and 204 DF, p-value: 0.5226
```

```
> nobs(m8)
```

```
[1] 206
> summary(m9)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 9, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.38491 -0.02164  0.02030  0.05328  0.19021

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.414495   0.008002  51.800 < 2e-16 ***
percentage.methodist 0.217722   0.033310   6.536 4.08e-10 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08223 on 228 degrees of freedom
(4 observations deleted due to missingness)
Multiple R-squared:  0.1578,
Adjusted R-squared:  0.1541
F-statistic: 42.72 on 1 and 228 DF,  p-value: 4.078e-10
```

```
> nobs(m9)
[1] 230
> summary(m10)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 10, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.41904 -0.02936  0.01322  0.04574  0.18375

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.42510   0.00897  47.391 < 2e-16 ***
percentage.methodist 0.17129   0.04155   4.122 5.81e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08622 on 173 degrees of freedom
(59 observations deleted due to missingness)
Multiple R-squared:  0.08944,
Adjusted R-squared:  0.08417
F-statistic: 16.99 on 1 and 173 DF,  p-value: 5.815e-05
```

```
> nobs(m10)
[1] 175
> summary(m11)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 11, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.37831 -0.03317  0.01121  0.04854  0.21417

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.421129   0.008914  47.245 < 2e-16 ***
percentage.methodist 0.282747   0.040086   7.054 2.43e-11 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08614 on 212 degrees of freedom
(4 observations deleted due to missingness)
Multiple R-squared:  0.1901,
Adjusted R-squared:  0.1863
F-statistic: 49.75 on 1 and 212 DF,  p-value: 2.431e-11
```

```

> nobs(m11)
[1] 214
> summary(m12)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 12, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.258153 -0.035580  0.004224  0.043065  0.248996

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.469805   0.008593  54.671 < 2e-16 ***
percentage.methodist 0.209859   0.038784   5.411 1.65e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08433 on 218 degrees of freedom
(30 observations deleted due to missingness)
Multiple R-squared:  0.1184,
Adjusted R-squared:  0.1144
F-statistic: 29.28 on 1 and 218 DF,  p-value: 1.645e-07

```

```

> nobs(m12)
[1] 220
> summary(m13)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 13, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.38716 -0.12916 -0.00431  0.14898  0.45588

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.39657   0.02083  19.035 < 2e-16 ***
percentage.methodist 0.83216   0.10008   8.315 1.43e-14 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1883 on 199 degrees of freedom
(17 observations deleted due to missingness)
Multiple R-squared:  0.2578,
Adjusted R-squared:  0.2541
F-statistic: 69.14 on 1 and 199 DF,  p-value: 1.428e-14

```

```

> nobs(m13)
[1] 201
> summary(m14)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 14, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.255556 -0.090944  0.005043  0.081943  0.280603

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.26356   0.01326  19.870 < 2e-16 ***
percentage.methodist 0.41243   0.06319   6.526 5.32e-10 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1202 on 202 degrees of freedom
(12 observations deleted due to missingness)
Multiple R-squared:  0.1741,
Adjusted R-squared:  0.1701
F-statistic: 42.59 on 1 and 202 DF,  p-value: 5.321e-10

```

```

> nobs(m14)
[1] 204
> summary(m15)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 15, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.36655 -0.09892  0.01314  0.09098  0.39711

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.41016   0.01564  26.219 < 2e-16 ***
percentage.methodist 0.19633   0.06947   2.826  0.00513 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1437 on 228 degrees of freedom
(4 observations deleted due to missingness)
Multiple R-squared:  0.03385,
Adjusted R-squared:  0.02961
F-statistic: 7.987 on 1 and 228 DF,  p-value: 0.005129

```

```

> nobs(m15)
[1] 230
> summary(m16)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 16, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.35823 -0.08411  0.00512  0.07334  0.37140

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.38768   0.01419  27.311 < 2e-16 ***
percentage.methodist 0.32415   0.06359   5.097 7.25e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1307 on 227 degrees of freedom
(11 observations deleted due to missingness)
Multiple R-squared:  0.1027,
Adjusted R-squared:  0.09876
F-statistic: 25.98 on 1 and 227 DF,  p-value: 7.25e-07

```

```

> nobs(m16)
[1] 229
>
> #
>
> mm1 <- coefTest(m1, vcov = vcovHAC(m1))
> mm1

t test of coefficients:

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.597266   0.022197  26.9070 <2e-16 ***
percentage.methodist -0.119207   0.075313  -1.5828  0.1167
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm2 <- coefTest(m2, vcov = vcovHAC(m2))
> mm2

t test of coefficients:

                Estimate Std. Error t value Pr(>|t|)

```

```
(Intercept)          0.5103506  0.0268695 18.9936  <2e-16 ***
percentage.methodist  0.0074666  0.0872371  0.0856   0.932
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm3 <- coeftest(m3, vcov = vcovHAC(m3))
> mm3
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.501692   0.018330 27.3706  <2e-16 ***
percentage.methodist 0.041488   0.066868  0.6204   0.5362
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm4 <- coeftest(m4, vcov = vcovHAC(m4))
> mm4
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.532227   0.016599 32.0634  <2e-16 ***
percentage.methodist -0.068330   0.049729 -1.3741   0.1712
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm5 <- coeftest(m5, vcov = vcovHAC(m5))
> mm5
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.497835   0.021119 23.5732  <2e-16 ***
percentage.methodist -0.014530   0.071780 -0.2024   0.8399
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm6 <- coeftest(m6, vcov = vcovHAC(m6))
> mm6
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.458542   0.013845 33.119 < 2.2e-16 ***
percentage.methodist 0.115875   0.040815  2.839  0.004947 **
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm7 <- coeftest(m7, vcov = vcovHAC(m7))
> mm7
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.463825   0.013571 34.179  <2e-16 ***
percentage.methodist 0.036923   0.037184  0.993   0.3219
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm8 <- coeftest(m8, vcov = vcovHAC(m8))
> mm8
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.441724   0.010716 41.2195  <2e-16 ***
percentage.methodist 0.027145   0.035724  0.7599   0.4482
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```

> mm9 <- coeftest(m9, vcov = vcovHAC(m9))
> mm9

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.414495   0.010688 38.7825 < 2.2e-16 ***
percentage.methodist 0.217722 0.029785  7.3098 4.48e-12 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm10 <- coeftest(m10, vcov = vcovHAC(m10))
> mm10

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.425099   0.010508 40.4562 < 2.2e-16 ***
percentage.methodist 0.171291 0.051677  3.3146 0.001118 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm11 <- coeftest(m11, vcov = vcovHAC(m11))
> mm11

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.421129   0.010882 38.6981 < 2.2e-16 ***
percentage.methodist 0.282747 0.038857  7.2767 6.552e-12 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm12 <- coeftest(m12, vcov = vcovHAC(m12))
> mm12

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.4698053 0.0094179 49.8841 < 2.2e-16 ***
percentage.methodist 0.2098589 0.0309706  6.7761 1.136e-10 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm13 <- coeftest(m13, vcov = vcovHAC(m13))
> mm13

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.396575   0.025329 15.6568 < 2.2e-16 ***
percentage.methodist 0.832162 0.109200  7.6205 1.007e-12 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm14 <- coeftest(m14, vcov = vcovHAC(m14))
> mm14

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.263557   0.015291 17.2357 < 2.2e-16 ***
percentage.methodist 0.412431 0.054377  7.5847 1.193e-12 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm15 <- coeftest(m15, vcov = vcovHAC(m15))
> mm15

t test of coefficients:

              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.263557   0.015291 17.2357 < 2.2e-16 ***
percentage.methodist 0.412431 0.054377  7.5847 1.193e-12 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.410158   0.014845 27.6295 < 2.2e-16 ***
percentage.methodist 0.196332   0.059805  3.2828 0.001189 **
---

```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm16 <- coefptest(m16, vcov = vcovHAC(m16))
> mm16
```

```
t test of coefficients:
```

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.387676   0.016421 23.6079 < 2.2e-16 ***
percentage.methodist 0.324155   0.059076  5.4871 1.088e-07 ***
---

```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```

>
> #
>
> coef <- mm1[2,1]
> se <- mm1[2,2]
> conf1 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)
> conf1 <- c(conf1,coef,"1st (1867-1872)")
> coef <- mm2[2,1]
> se <- mm2[2,2]
> conf2 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)
> conf2 <- c(conf2,coef,"2nd (1872-1874)")
> coef <- mm3[2,1]
> se <- mm3[2,2]
> conf3 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)
> conf3 <- c(conf3,coef,"3rd (1874-1878)")
> coef <- mm4[2,1]
> se <- mm4[2,2]
> conf4 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)
> conf4 <- c(conf4,coef,"4th (1879-1882)")
> coef <- mm5[2,1]
> se <- mm5[2,2]
> conf5 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)
> conf5 <- c(conf5,coef,"5th (1883-1887)")
> coef <- mm6[2,1]
> se <- mm6[2,2]
> conf6 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conf6 <- c(conf6,coef,"6th (1887-1891)")
> coef <- mm7[2,1]
> se <- mm7[2,2]
> conf7 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conf7 <- c(conf7,coef,"7th (1891-1896)")
> coef <- mm8[2,1]
> se <- mm8[2,2]
> conf8 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conf8 <- c(conf8,coef,"8th (1896-1900)")
> coef <- mm9[2,1]
> se <- mm9[2,2]
> conf9 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conf9 <- c(conf9,coef,"9th (1901-1904)")
> coef <- mm10[2,1]
> se <- mm10[2,2]
> conf10 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conf10 <- c(conf10,coef,"10th (1905-1908)")
> coef <- mm11[2,1]
> se <- mm11[2,2]
> conf11 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conf11 <- c(conf11,coef,"11th (1909-1911)")
> coef <- mm12[2,1]
> se <- mm12[2,2]
> conf12 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
> conf12 <- c(conf12,coef,"12th (1911-1917)")
> coef <- mm13[2,1]
> se <- mm13[2,2]
> conf13 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)

```

```

> conf13 <- c(conf13,coef,"13th (1917-1921)")
> coef <- mm14[2,1]
> se <- mm14[2,2]
> conf14 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conf14 <- c(conf14,coef,"14th (1921-1925)")
> coef <- mm15[2,1]
> se <- mm15[2,2]
> conf15 <- coef + c(-1,1)*se*qt(0.975, m15$df.residual)
> conf15 <- c(conf15,coef,"15th (1926)")
> coef <- mm16[2,1]
> se <- mm16[2,2]
> conf16 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conf16 <- c(conf16,coef,"16th (1926-1930)")
>
> all2 <-
rbind(cons.meth1,conf16,conf15,conf14,conf13,conf12,conf11,conf10,conf9,conf8,conf7,conf6,conf5,conf4,conf3,conf2,conf1)
>
> ###
> ###GRAPHS Conservatives
>
> a1 <- all1
> colnames(a1) <- c("low","high","coef","V1")
> a1 <- data.frame(a1)
> a1$low <- as.numeric(as.character(a1$low))
> a1$high <- as.numeric(as.character(a1$high))
> a1$coef <- as.numeric(as.character(a1$coef))
> a1$specification <- 1:23
> a1$method <- paste("Catholic")
>
> a2 <- all2
> colnames(a2) <- c("low","high","coef","V1")
> a2 <- data.frame(a2)
> a2$low <- as.numeric(as.character(a2$low))
> a2$high <- as.numeric(as.character(a2$high))
> a2$coef <- as.numeric(as.character(a2$coef))
> a2$specification <- 1:23
> a2$method <- paste("Methodist")
>
> #ggplot combine
>
> conf21 <- coef + c(-1,1)*se*qt(0.975, m21$df.residual)
> conf21 <- c(conf21,coef,"21st (1949-1953)")
> coef <- mm22[2,1]
> se <- mm22[2,2]
> conf22 <- coef + c(-1,1)*se*qt(0.975, m22$df.residual)
> conf22 <- c(conf22,coef,"22th (1953-1957)")
> coef <- mm23[2,1]
> se <- mm23[2,2]
> conf23 <- coef + c(-1,1)*se*qt(0.975, m23$df.residual)
> conf23 <- c(conf23,coef,"23th (1958)")
> coef <- mm24[2,1]
> se <- mm24[2,2]
> conf24 <- coef + c(-1,1)*se*qt(0.975, m24$df.residual)
> conf24 <- c(conf24,coef,"24th (1958-1962)")
> coef <- mm25[2,1]
> se <- mm25[2,2]
> conf25 <- coef + c(-1,1)*se*qt(0.975, m25$df.residual)
> conf25 <- c(conf25,coef,"25th (1962)")
> coef <- mm26[2,1]
> se <- mm26[2,2]
> conf26 <- coef + c(-1,1)*se*qt(0.975, m26$df.residual)
> conf26 <- c(conf26,coef,"26th (1963-1965)")
> coef <- mm27[2,1]
> se <- mm27[2,2]
> conf27 <- coef + c(-1,1)*se*qt(0.975, m27$df.residual)
> conf27 <- c(conf27,coef,"27th (1965-1968)")
>
>
> all <- rbind(a1,a2)
> lab <- c("27th (1965-1968)","26th (1963-1965)","25th (1962)","24th (1958-1962)","23rd (1958)","22nd

```

```

(1953-1957)", "21st (1949-1953)", "16th (1926-1930)", "15th (1925)", "14th (1921-1925)", "13th (1917-1921)", "12th
(1911-1917)", "11th (1909-1911)", "10th (1905-1908)", "9th (1901-1904)", "8th (1896-1900)", "7th (1891-1896)", "6th
(1887-1891)", "5th (1883-1887)", "4th (1879-1882)", "3rd (1874-1878)", "2nd (1872-1874)", "1st (1867-1872)")
> pd <- position_dodge(width=0.3)
>
> #tiff(file = "~/Dropbox/Canada-Manuscript/Figures-Final/Figure-7.1.1.jpg", width = 8, height = 8, units =
'in', res = #200)
> #ggplot(all, aes(specification,coef, color=method,ymin = low,ymax = high)) +
> #geom_point(aes(shape=method),size=2, position=pd) +
> #scale_color_manual(name="Type",values=c("black","gray")) +
> #scale_shape_manual(name="Type",values=c(16,16)) +
> #theme_bw() +
> #scale_x_discrete("Parliaments (1867-1968)", breaks=1:23, labels=lab,limits = c(1:23)) +
> #scale_y_continuous("95% Confidence Intervals by Religion",limits = c(-1.2,1.2)) +
> #geom_errorbar(aes(ymin=low,ymax=high),width=0.2,size=.3,position=pd)+
> #geom_hline(yintercept=0) +
> #ggtitle("Conservative Vote") +
> #theme(plot.title = element_text(hjust = 0.5)) +
> #coord_flip()
> #dev.off()
>
> #####
> #7.1.3 Liberals 1867-1930#
> #####
>
> dat1 <- subset(dat,dat$Party=="Lib"|dat$Party=="Opp")
>
> m7.3a <- Percentage ~ percentage.catholic
> m7.3b <- Percentage ~ percentage.methodist
>
> #Catholics
>
> model <- m7.3a
>
> m1 <- lm(model,data=dat1[dat1$Parliament.no.x==1,])
> m2 <- lm(model,data=dat1[dat1$Parliament.no.x==2,])
> m3 <- lm(model,data=dat1[dat1$Parliament.no.x==3,])
> m4 <- lm(model,data=dat1[dat1$Parliament.no.x==4,])
> m5 <- lm(model,data=dat1[dat1$Parliament.no.x==5,])
> m6 <- lm(model,data=dat1[dat1$Parliament.no.x==6,])
> m7 <- lm(model,data=dat1[dat1$Parliament.no.x==7,])
> m8 <- lm(model,data=dat1[dat1$Parliament.no.x==8,])
> m9 <- lm(model,data=dat1[dat1$Parliament.no.x==9,])
> m10 <- lm(model,data=dat1[dat1$Parliament.no.x==10,])
> m11 <- lm(model,data=dat1[dat1$Parliament.no.x==11,])
> m12 <- lm(model,data=dat1[dat1$Parliament.no.x==12,])
> m13 <- lm(model,data=dat1[dat1$Parliament.no.x==13,])
> m14 <- lm(model,data=dat1[dat1$Parliament.no.x==14,])
> m15 <- lm(model,data=dat1[dat1$Parliament.no.x==15,])
> m16 <- lm(model,data=dat1[dat1$Parliament.no.x==16,])
>
> summary(m1)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 1, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.22000 -0.05759 -0.02409  0.03925  0.32898

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.574571   0.020458  28.086  <2e-16 ***
percentage.catholic -0.001431   0.038788  -0.037   0.971
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1064 on 59 degrees of freedom
(26 observations deleted due to missingness)
Multiple R-squared:  2.307e-05,
Adjusted R-squared:  -0.01693

```

F-statistic: 0.001361 on 1 and 59 DF, p-value: 0.9707

```
> nobs(m1)
[1] 61
> summary(m2)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 2, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.55410 -0.03694 -0.00939  0.03188  0.42522
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.51667    0.02126   24.307  <2e-16 ***
percentage.catholic 0.03939    0.03875    1.016   0.312
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1361 on 86 degrees of freedom
(44 observations deleted due to missingness)
Multiple R-squared:  0.01187,
Adjusted R-squared:  0.0003787
F-statistic: 1.033 on 1 and 86 DF, p-value: 0.3123
```

```
> nobs(m2)
[1] 88
> summary(m3)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 3, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.28344 -0.03177 -0.00655  0.03644  0.41662
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.532561    0.014809   35.96  <2e-16 ***
percentage.catholic -0.002347    0.029305   -0.08   0.936
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1137 on 135 degrees of freedom
(60 observations deleted due to missingness)
Multiple R-squared:  4.753e-05,
Adjusted R-squared: -0.00736
F-statistic: 0.006416 on 1 and 135 DF, p-value: 0.9363
```

```
> nobs(m3)
[1] 137
> summary(m4)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 4, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.37627 -0.02073  0.02760  0.06581  0.43328
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.47269    0.01506   31.389  <2e-16 ***
percentage.catholic -0.02775    0.03231   -0.859   0.392
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1177 on 130 degrees of freedom
(4 observations deleted due to missingness)
Multiple R-squared:  0.005643,
```

Adjusted R-squared: -0.002006
F-statistic: 0.7378 on 1 and 130 DF, p-value: 0.392

```
> nobs(m4)
[1] 132
> summary(m5)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 5, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.28741 -0.03036  0.03020  0.06517  0.24143
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.47602    0.01664   28.614 <2e-16 ***
percentage.catholic -0.03845    0.03424   -1.123  0.264
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.116 on 107 degrees of freedom
(20 observations deleted due to missingness)
Multiple R-squared:  0.01164,
Adjusted R-squared:  0.002406
F-statistic: 1.261 on 1 and 107 DF, p-value: 0.2641
```

```
> nobs(m5)
[1] 109
> summary(m6)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 6, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.35999 -0.03144  0.02338  0.04873  0.35455
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.46094    0.01211   38.070 <2e-16 ***
percentage.catholic 0.01038    0.02423    0.428  0.669
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1155 on 195 degrees of freedom
(5 observations deleted due to missingness)
Multiple R-squared:  0.0009399,
Adjusted R-squared: -0.004184
F-statistic: 0.1834 on 1 and 195 DF, p-value: 0.6689
```

```
> nobs(m6)
[1] 197
> summary(m7)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 7, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.45166 -0.02765  0.02820  0.06382  0.27708
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.461526    0.012763   36.162 <2e-16 ***
percentage.catholic -0.007155    0.024279   -0.295  0.769
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1176 on 190 degrees of freedom
(28 observations deleted due to missingness)
```

Multiple R-squared: 0.0004569,
Adjusted R-squared: -0.004804
F-statistic: 0.08685 on 1 and 190 DF, p-value: 0.7685

```
> nobs(m7)
[1] 192
> summary(m8)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 8, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.30241 -0.03483  0.01707  0.05178  0.26988
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.46354    0.01169   39.641 < 2e-16 ***
percentage.catholic 0.05645    0.02111    2.674 0.00816 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1042 on 187 degrees of freedom
(46 observations deleted due to missingness)
Multiple R-squared: 0.03683,
Adjusted R-squared: 0.03168
F-statistic: 7.15 on 1 and 187 DF, p-value: 0.00816
```

```
> nobs(m8)
[1] 189
> summary(m9)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 9, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.293879 -0.021575  0.009349  0.045880  0.262725
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.468325    0.009172   51.062 < 2e-16 ***
percentage.catholic 0.083980    0.016471    5.099 7.08e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.09148 on 233 degrees of freedom
(16 observations deleted due to missingness)
Multiple R-squared: 0.1004,
Adjusted R-squared: 0.09651
F-statistic: 26 on 1 and 233 DF, p-value: 7.083e-07
```

```
> nobs(m9)
[1] 235
> summary(m10)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 10, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.25751 -0.03814 -0.00304  0.04163  0.32862
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.48766    0.01009   48.309 < 2e-16 ***
percentage.catholic 0.08957    0.01639    5.464 1.57e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.08095 on 176 degrees of freedom
```

```
(73 observations deleted due to missingness)
Multiple R-squared: 0.145,
Adjusted R-squared: 0.1402
F-statistic: 29.85 on 1 and 176 DF, p-value: 1.573e-07
```

```
> nobs(m10)
[1] 178
> summary(m11)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 11, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.26960 -0.04167  0.00316  0.04165  0.52312
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)         0.46643    0.01013   46.034 < 2e-16 ***
percentage.catholic  0.10767    0.01838    5.859 1.73e-08 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.09644 on 215 degrees of freedom
(6 observations deleted due to missingness)
Multiple R-squared: 0.1377,
Adjusted R-squared: 0.1337
F-statistic: 34.33 on 1 and 215 DF, p-value: 1.732e-08
```

```
> nobs(m11)
[1] 217
> summary(m12)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 12, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.29610 -0.03443  0.01006  0.04331  0.27128
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)         0.447579    0.009511   47.059 < 2e-16 ***
percentage.catholic  0.070116    0.017553    3.995 8.89e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.09099 on 216 degrees of freedom
(5 observations deleted due to missingness)
Multiple R-squared: 0.06879,
Adjusted R-squared: 0.06448
F-statistic: 15.96 on 1 and 216 DF, p-value: 8.889e-05
```

```
> nobs(m12)
[1] 218
> summary(m13)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 13, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.36173 -0.08836  0.00597  0.09874  0.32026
```

```
Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)         0.23609    0.01381   17.10 <2e-16 ***
percentage.catholic  0.56909    0.02761   20.61 <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Residual standard error: 0.1294 on 199 degrees of freedom
(21 observations deleted due to missingness)
Multiple R-squared: 0.681,
Adjusted R-squared: 0.6794
F-statistic: 424.9 on 1 and 199 DF, p-value: < 2.2e-16

```
> nobs(m13)
[1] 201
> summary(m14)
```

Call:
lm(formula = model, data = dat1[dat1\$Parliament.no.x == 14,])

Residuals:

Min	1Q	Median	3Q	Max
-0.38426	-0.08552	0.00149	0.11089	0.37582

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.25095	0.01580	15.89	<2e-16 ***
percentage.catholic	0.47823	0.02838	16.85	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1419 on 201 degrees of freedom
(42 observations deleted due to missingness)
Multiple R-squared: 0.5855,
Adjusted R-squared: 0.5834
F-statistic: 283.9 on 1 and 201 DF, p-value: < 2.2e-16

```
> nobs(m14)
[1] 203
> summary(m15)
```

Call:
lm(formula = model, data = dat1[dat1\$Parliament.no.x == 15,])

Residuals:

Min	1Q	Median	3Q	Max
-0.50368	-0.06950	0.01649	0.07556	0.44072

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.33428	0.01448	23.090	<2e-16 ***
percentage.catholic	0.25335	0.02592	9.773	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1283 on 215 degrees of freedom
(3 observations deleted due to missingness)
Multiple R-squared: 0.3076,
Adjusted R-squared: 0.3044
F-statistic: 95.51 on 1 and 215 DF, p-value: < 2.2e-16

```
> nobs(m15)
[1] 217
> summary(m16)
```

Call:
lm(formula = model, data = dat1[dat1\$Parliament.no.x == 16,])

Residuals:

Min	1Q	Median	3Q	Max
-0.56965	-0.06631	0.01121	0.07358	0.26481

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.38732	0.01457	26.591	<2e-16 ***
percentage.catholic	0.24684	0.02608	9.463	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1233 on 195 degrees of freedom
(35 observations deleted due to missingness)
Multiple R-squared: 0.3147,
Adjusted R-squared: 0.3112
F-statistic: 89.56 on 1 and 195 DF, p-value: < 2.2e-16

```
> nobs(m16)
```

```
[1] 197
```

```
>
```

```
> #
```

```
>
```

```
> mm1 <- coefTest(m1, vcov = vcovHAC(m1))
```

```
> mm1
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.574571	0.019231	29.8779	<2e-16 ***
percentage.catholic	-0.001431	0.033586	-0.0426	0.9662

```
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm2 <- coefTest(m2, vcov = vcovHAC(m2))
```

```
> mm2
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.516673	0.017447	29.6144	<2e-16 ***
percentage.catholic	0.039388	0.043894	0.8973	0.372

```
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm3 <- coefTest(m3, vcov = vcovHAC(m3))
```

```
> mm3
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.5325610	0.0185302	28.7401	<2e-16 ***
percentage.catholic	-0.0023474	0.0374028	-0.0628	0.9501

```
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm4 <- coefTest(m4, vcov = vcovHAC(m4))
```

```
> mm4
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.472693	0.016522	28.6097	<2e-16 ***
percentage.catholic	-0.027752	0.033869	-0.8194	0.4141

```
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm5 <- coefTest(m5, vcov = vcovHAC(m5))
```

```
> mm5
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.476019	0.016533	28.7927	<2e-16 ***
percentage.catholic	-0.038447	0.031833	-1.2078	0.2298

```
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm6 <- coefTest(m6, vcov = vcovHAC(m6))
```

```
> mm6
```

```
t test of coefficients:
```

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.460937   0.012782 36.0625 <2e-16 ***
percentage.catholic 0.010376   0.025048   0.4142  0.6792
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm7 <- coefstest(m7, vcov = vcovHAC(m7))
> mm7

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.4615257 0.0136874 33.7190 <2e-16 ***
percentage.catholic -0.0071553 0.0223374 -0.3203  0.7491
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm8 <- coefstest(m8, vcov = vcovHAC(m8))
> mm8

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.463542  0.013716 33.7952 < 2.2e-16 ***
percentage.catholic 0.056452  0.021203  2.6624  0.008434 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm9 <- coefstest(m9, vcov = vcovHAC(m9))
> mm9

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.468325  0.011422 41.0030 < 2.2e-16 ***
percentage.catholic 0.083980  0.019968  4.2057 3.714e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm10 <- coefstest(m10, vcov = vcovHAC(m10))
> mm10

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.4876599  0.0095913 50.8439 < 2.2e-16 ***
percentage.catholic 0.0895653  0.0163686  5.4718 1.513e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm11 <- coefstest(m11, vcov = vcovHAC(m11))
> mm11

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.466435  0.010040 46.4594 < 2.2e-16 ***
percentage.catholic 0.107668  0.019229  5.5992 6.532e-08 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm12 <- coefstest(m12, vcov = vcovHAC(m12))
> mm12

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.4475788  0.0097774 45.777 < 2.2e-16 ***
percentage.catholic 0.0701158  0.0172148  4.073 6.517e-05 ***
---

```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm13 <- coeftest(m13, vcov = vcovHAC(m13))  
> mm13
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.236086	0.013313	17.734	< 2.2e-16 ***
percentage.catholic	0.569090	0.030133	18.886	< 2.2e-16 ***

```
---  
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm14 <- coeftest(m14, vcov = vcovHAC(m14))  
> mm14
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.250953	0.016468	15.239	< 2.2e-16 ***
percentage.catholic	0.478233	0.025919	18.451	< 2.2e-16 ***

```
---  
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm15 <- coeftest(m15, vcov = vcovHAC(m15))  
> mm15
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.334283	0.015993	20.9023	< 2.2e-16 ***
percentage.catholic	0.253352	0.028988	8.7398	6.722e-16 ***

```
---  
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
> mm16 <- coeftest(m16, vcov = vcovHAC(m16))  
> mm16
```

```
t test of coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.387323	0.015890	24.3756	< 2.2e-16 ***
percentage.catholic	0.246842	0.030413	8.1163	5.312e-14 ***

```
---  
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
>  
> #  
>  
> coef <- mm1[2,1]  
> se <- mm1[2,2]  
> conf1 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)  
> conf1 <- c(conf1,coef,"1st (1867-1872)")  
> coef <- mm2[2,1]  
> se <- mm2[2,2]  
> conf2 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)  
> conf2 <- c(conf2,coef,"2nd (1872-1874)")  
> coef <- mm3[2,1]  
> se <- mm3[2,2]  
> conf3 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)  
> conf3 <- c(conf3,coef,"3rd (1874-1878)")  
> coef <- mm4[2,1]  
> se <- mm4[2,2]  
> conf4 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)  
> conf4 <- c(conf4,coef,"4th (1879-1882)")  
> coef <- mm5[2,1]  
> se <- mm5[2,2]  
> conf5 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)  
> conf5 <- c(conf5,coef,"5th (1883-1887)")  
> coef <- mm6[2,1]  
> se <- mm6[2,2]
```

```

> conf6 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conf6 <- c(conf6,coef,"6th (1887-1891)")
> coef <- mm7[2,1]
> se <- mm7[2,2]
> conf7 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conf7 <- c(conf7,coef,"7th (1891-1896)")
> coef <- mm8[2,1]
> se <- mm8[2,2]
> conf8 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conf8 <- c(conf8,coef,"8th (1896-1900)")
> coef <- mm9[2,1]
> se <- mm9[2,2]
> conf9 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conf9 <- c(conf9,coef,"9th (1901-1904)")
> coef <- mm10[2,1]
> se <- mm10[2,2]
> conf10 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conf10 <- c(conf10,coef,"10th (1905-1908)")
> coef <- mm11[2,1]
> se <- mm11[2,2]
> conf11 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conf11 <- c(conf11,coef,"11th (1909-1911)")
> coef <- mm12[2,1]
> se <- mm12[2,2]
> conf12 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
> conf12 <- c(conf12,coef,"12th (1911-1917)")
> coef <- mm13[2,1]
> se <- mm13[2,2]
> conf13 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)
> conf13 <- c(conf13,coef,"13th (1917-1921)")
> coef <- mm14[2,1]
> se <- mm14[2,2]
> conf14 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conf14 <- c(conf14,coef,"14th (1921-1925)")
> coef <- mm15[2,1]
> se <- mm15[2,2]
> conf15 <- coef + c(-1,1)*se*qt(0.975, m15$df.residual)
> conf15 <- c(conf15,coef,"15th (1926)")
> coef <- mm16[2,1]
> se <- mm16[2,2]
> conf16 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conf16 <- c(conf16,coef,"16th (1926-1930)")
>
> all1 <-
rbind(lib.cath1,conf16,conf15,conf14,conf13,conf12,conf11,conf10,conf9,conf8,conf7,conf6,conf5,conf4,conf3,conf
2,conf1)
>
> #Methodists
>
> model <- m7.3b
>
> m1 <- lm(model,data=dat1[dat1$Parliament.no.x==1,],)
> m2 <- lm(model,data=dat1[dat1$Parliament.no.x==2,],)
> m3 <- lm(model,data=dat1[dat1$Parliament.no.x==3,],)
> m4 <- lm(model,data=dat1[dat1$Parliament.no.x==4,],)
> m5 <- lm(model,data=dat1[dat1$Parliament.no.x==5,],)
> m6 <- lm(model,data=dat1[dat1$Parliament.no.x==6,],)
> m7 <- lm(model,data=dat1[dat1$Parliament.no.x==7,],)
> m8 <- lm(model,data=dat1[dat1$Parliament.no.x==8,],)
> m9 <- lm(model,data=dat1[dat1$Parliament.no.x==9,],)
> m10 <- lm(model,data=dat1[dat1$Parliament.no.x==10,],)
> m11 <- lm(model,data=dat1[dat1$Parliament.no.x==11,],)
> m12 <- lm(model,data=dat1[dat1$Parliament.no.x==12,],)
> m13 <- lm(model,data=dat1[dat1$Parliament.no.x==13,],)
> m14 <- lm(model,data=dat1[dat1$Parliament.no.x==14,],)
> m15 <- lm(model,data=dat1[dat1$Parliament.no.x==15,],)
> m16 <- lm(model,data=dat1[dat1$Parliament.no.x==16,],)
>
> summary(m1)

```

Call:

```
lm(formula = model, data = dat1[dat1$Parliament.no.x == 1, ])
```

```
Residuals:
```

```
      Min       1Q   Median       3Q      Max
-0.22348 -0.05437 -0.01974  0.03482  0.32433
```

```
Coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.58053    0.02033  28.560 <2e-16 ***
percentage.methodist -0.03950    0.09153  -0.432  0.668
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1062 on 59 degrees of freedom
(26 observations deleted due to missingness)
```

```
Multiple R-squared:  0.003147,
```

```
Adjusted R-squared: -0.01375
```

```
F-statistic: 0.1862 on 1 and 59 DF,  p-value: 0.6676
```

```
> nobs(m1)
```

```
[1] 61
```

```
> summary(m2)
```

```
Call:
```

```
lm(formula = model, data = dat1[dat1$Parliament.no.x == 2, ])
```

```
Residuals:
```

```
      Min       1Q   Median       3Q      Max
-0.53420 -0.02613 -0.01060  0.03546  0.44469
```

```
Coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.53591    0.02203  24.329 <2e-16 ***
percentage.methodist -0.02010    0.09619  -0.209  0.835
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1369 on 86 degrees of freedom
(44 observations deleted due to missingness)
```

```
Multiple R-squared:  0.0005075,
```

```
Adjusted R-squared: -0.01111
```

```
F-statistic: 0.04367 on 1 and 86 DF,  p-value: 0.835
```

```
> nobs(m2)
```

```
[1] 88
```

```
> summary(m3)
```

```
Call:
```

```
lm(formula = model, data = dat1[dat1$Parliament.no.x == 3, ])
```

```
Residuals:
```

```
      Min       1Q   Median       3Q      Max
-0.26948 -0.03943 -0.01143  0.03915  0.42074
```

```
Coefficients:
```

```
              Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.51608    0.01507  34.234 <2e-16 ***
percentage.methodist 0.09156    0.06802  1.346  0.181
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.113 on 135 degrees of freedom
(60 observations deleted due to missingness)
```

```
Multiple R-squared:  0.01324,
```

```
Adjusted R-squared:  0.005935
```

```
F-statistic: 1.812 on 1 and 135 DF,  p-value: 0.1805
```

```
> nobs(m3)
```

```
[1] 137
```

```
> summary(m4)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 4, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.37885 -0.03300  0.02345  0.06886  0.38501
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.43402    0.01648  26.335  <2e-16 ***
percentage.methodist 0.15076    0.06735   2.239  0.0269 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1158 on 130 degrees of freedom
(4 observations deleted due to missingness)
Multiple R-squared:  0.03712,
Adjusted R-squared:  0.02971
F-statistic: 5.011 on 1 and 130 DF, p-value: 0.02688
```

```
> nobs(m4)
[1] 132
> summary(m5)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 5, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.27230 -0.02444  0.02629  0.06798  0.25682
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.44716    0.01697  26.343  <2e-16 ***
percentage.methodist 0.07856    0.06740   1.166   0.246
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.116 on 107 degrees of freedom
(20 observations deleted due to missingness)
Multiple R-squared:  0.01254,
Adjusted R-squared:  0.00331
F-statistic: 1.359 on 1 and 107 DF, p-value: 0.2464
```

```
> nobs(m5)
[1] 109
> summary(m6)
```

```
Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 6, ])
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.35579 -0.02763  0.01973  0.04820  0.37760
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.44812    0.01284  34.890  <2e-16 ***
percentage.methodist 0.08193    0.04885   1.677  0.0951 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1147 on 195 degrees of freedom
(5 observations deleted due to missingness)
Multiple R-squared:  0.01422,
Adjusted R-squared:  0.009166
F-statistic: 2.813 on 1 and 195 DF, p-value: 0.0951
```

```
> nobs(m6)
[1] 197
> summary(m7)
```

```

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 7, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.43630 -0.04125  0.02029  0.06821  0.24858

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.42762    0.01265  33.795 < 2e-16 ***
percentage.methodist 0.16545    0.05100   3.244  0.00139 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1145 on 190 degrees of freedom
(28 observations deleted due to missingness)
Multiple R-squared:  0.05249,
Adjusted R-squared:  0.0475
F-statistic: 10.53 on 1 and 190 DF,  p-value: 0.001391

```

```

> nobs(m7)
[1] 192
> summary(m8)

```

```

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 8, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.29966 -0.03792  0.01524  0.05708  0.26902

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.49141    0.01156  42.492 <2e-16 ***
percentage.methodist -0.02409    0.05112  -0.471  0.638
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1061 on 187 degrees of freedom
(46 observations deleted due to missingness)
Multiple R-squared:  0.001186,
Adjusted R-squared: -0.004155
F-statistic: 0.222 on 1 and 187 DF,  p-value: 0.6381

```

```

> nobs(m8)
[1] 189
> summary(m9)

```

```

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 9, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.310456 -0.021410  0.009206  0.040787  0.287667

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.525886    0.009082   57.9 < 2e-16 ***
percentage.methodist -0.126409    0.038310   -3.3  0.00112 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.09427 on 233 degrees of freedom
(16 observations deleted due to missingness)
Multiple R-squared:  0.04464,
Adjusted R-squared:  0.04054
F-statistic: 10.89 on 1 and 233 DF,  p-value: 0.00112

```

```

> nobs(m9)
[1] 235

```

```
> summary(m10)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 10, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.28129 -0.03778 -0.00310  0.03804  0.34147

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.559013   0.008437  66.254 < 2e-16 ***
percentage.methodist -0.188286   0.039670  -4.746 4.27e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.08243 on 176 degrees of freedom
(73 observations deleted due to missingness)
Multiple R-squared:  0.1135,
Adjusted R-squared:  0.1084
F-statistic: 22.53 on 1 and 176 DF, p-value: 4.273e-06
```

```
> nobs(m10)
[1] 178
> summary(m11)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 11, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.29426 -0.03785  0.00481  0.04132  0.48390

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.546769   0.009917  55.133 < 2e-16 ***
percentage.methodist -0.220511   0.046025  -4.791 3.09e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.09872 on 215 degrees of freedom
(6 observations deleted due to missingness)
Multiple R-squared:  0.09647,
Adjusted R-squared:  0.09227
F-statistic: 22.96 on 1 and 215 DF, p-value: 3.089e-06
```

```
> nobs(m11)
[1] 217
> summary(m12)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 12, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.31097 -0.02821  0.01207  0.04449  0.28512

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.502033   0.009229  54.395 < 2e-16 ***
percentage.methodist -0.157936   0.042376  -3.727 0.000247 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.09139 on 216 degrees of freedom
(5 observations deleted due to missingness)
Multiple R-squared:  0.06042,
Adjusted R-squared:  0.05607
F-statistic: 13.89 on 1 and 216 DF, p-value: 0.0002474
```

```
> nobs(m12)
```

```
[1] 218
> summary(m13)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 13, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.35692 -0.15310 -0.00231  0.12035  0.39915

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.57745    0.02123  27.196 < 2e-16 ***
percentage.methodist -0.81158    0.10116  -8.023 8.75e-14 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1991 on 199 degrees of freedom
(21 observations deleted due to missingness)
Multiple R-squared:  0.2444,
Adjusted R-squared:  0.2406
F-statistic: 64.36 on 1 and 199 DF,  p-value: 8.749e-14
```

```
> nobs(m13)
[1] 201
> summary(m14)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 14, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.44440 -0.13396  0.02837  0.13149  0.37000

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.58448    0.01831  31.917 <2e-16 ***
percentage.methodist -0.97893    0.10119  -9.674 <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.182 on 201 degrees of freedom
(42 observations deleted due to missingness)
Multiple R-squared:  0.3177,
Adjusted R-squared:  0.3143
F-statistic: 93.59 on 1 and 201 DF,  p-value: < 2.2e-16
```

```
> nobs(m14)
[1] 203
> summary(m15)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 15, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.45380 -0.07775  0.02937  0.08728  0.28860

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.53642    0.01419  37.801 < 2e-16 ***
percentage.methodist -0.59482    0.07249  -8.206 2.09e-14 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1346 on 215 degrees of freedom
(3 observations deleted due to missingness)
Multiple R-squared:  0.2385,
Adjusted R-squared:  0.2349
F-statistic: 67.33 on 1 and 215 DF,  p-value: 2.094e-14
```

```

> nobs(m15)
[1] 217
> summary(m16)

Call:
lm(formula = model, data = dat1[dat1$Parliament.no.x == 16, ])

Residuals:
    Min       1Q   Median       3Q      Max
-0.51121 -0.05791  0.00607  0.08245  0.29402

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.55975     0.01557  35.955 < 2e-16 ***
percentage.methodist -0.40811     0.07822  -5.218 4.61e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1396 on 195 degrees of freedom
(35 observations deleted due to missingness)
Multiple R-squared:  0.1225,
Adjusted R-squared:  0.118
F-statistic: 27.22 on 1 and 195 DF,  p-value: 4.612e-07

```

```

> nobs(m16)
[1] 197
>
> #
>
> mm1 <- coeftest(m1, vcov = vcovHAC(m1))
> mm1

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.580526     0.019570  29.6638 <2e-16 ***
percentage.methodist -0.039497     0.070321  -0.5617  0.5765
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm2 <- coeftest(m2, vcov = vcovHAC(m2))
> mm2

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.535912     0.029587  18.1132 <2e-16 ***
percentage.methodist -0.020101     0.101814  -0.1974  0.844
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm3 <- coeftest(m3, vcov = vcovHAC(m3))
> mm3

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.516077     0.018011  28.6538 <2e-16 ***
percentage.methodist 0.091563     0.067746  1.3516  0.1788
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

> mm4 <- coeftest(m4, vcov = vcovHAC(m4))
> mm4

```

t test of coefficients:

```

                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.434020     0.018475  23.4928 < 2e-16 ***
percentage.methodist 0.150762     0.077904  1.9352  0.05514 .
---

```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm5 <- coeftest(m5, vcov = vcovHAC(m5))
> mm5
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.447162	0.016808	26.6042	<2e-16 ***
percentage.methodist	0.078557	0.064279	1.2221	0.2243

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm6 <- coeftest(m6, vcov = vcovHAC(m6))
> mm6
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.448123	0.017188	26.0714	< 2e-16 ***
percentage.methodist	0.081930	0.048041	1.7054	0.08971 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm7 <- coeftest(m7, vcov = vcovHAC(m7))
> mm7
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.427622	0.017422	24.5443	< 2.2e-16 ***
percentage.methodist	0.165455	0.047299	3.4981	0.0005836 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm8 <- coeftest(m8, vcov = vcovHAC(m8))
> mm8
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.491413	0.014011	35.072	<2e-16 ***
percentage.methodist	-0.024088	0.051028	-0.472	0.6374

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm9 <- coeftest(m9, vcov = vcovHAC(m9))
> mm9
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.525886	0.012510	42.0364	< 2e-16 ***
percentage.methodist	-0.126409	0.040502	-3.1211	0.00203 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm10 <- coeftest(m10, vcov = vcovHAC(m10))
> mm10
```

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.5590128	0.0094324	59.2650	< 2.2e-16 ***
percentage.methodist	-0.1882861	0.0446297	-4.2188	3.925e-05 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm11 <- coeftest(m11, vcov = vcovHAC(m11))
> mm11
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.546769   0.011491 47.5844 < 2.2e-16 ***
percentage.methodist -0.220511  0.041219 -5.3498 2.248e-07 ***
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm12 <- coeftest(m12, vcov = vcovHAC(m12))
> mm12
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.502033   0.010053 49.9363 < 2.2e-16 ***
percentage.methodist -0.157936  0.033344 -4.7365 3.937e-06 ***
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm13 <- coeftest(m13, vcov = vcovHAC(m13))
> mm13
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.577453   0.027626 20.9025 < 2.2e-16 ***
percentage.methodist -0.811585  0.111761 -7.2618 8.431e-12 ***
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm14 <- coeftest(m14, vcov = vcovHAC(m14))
> mm14
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.584482   0.018661 31.3212 < 2.2e-16 ***
percentage.methodist -0.978934  0.102774 -9.5252 < 2.2e-16 ***
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm15 <- coeftest(m15, vcov = vcovHAC(m15))
> mm15
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.536418   0.016156 33.2024 < 2.2e-16 ***
percentage.methodist -0.594815  0.074467 -7.9877 8.252e-14 ***
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> mm16 <- coeftest(m16, vcov = vcovHAC(m16))
> mm16
```

t test of coefficients:

```
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.559755   0.019004 29.4541 < 2.2e-16 ***
percentage.methodist -0.408106  0.077095 -5.2935 3.215e-07 ***
```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
>
> #
>
> coef <- mm1[2,1]
> se <- mm1[2,2]
> conf1 <- coef + c(-1,1)*se*qt(0.975, m1$df.residual)
> conf1 <- c(conf1,coef,"1st (1867-1872)")
> coef <- mm2[2,1]
```

```

> se <- mm2[2,2]
> conf2 <- coef + c(-1,1)*se*qt(0.975, m2$df.residual)
> conf2 <- c(conf2,coef,"2nd (1872-1874)")
> coef <- mm3[2,1]
> se <- mm3[2,2]
> conf3 <- coef + c(-1,1)*se*qt(0.975, m3$df.residual)
> conf3 <- c(conf3,coef,"3rd (1874-1878)")
> coef <- mm4[2,1]
> se <- mm4[2,2]
> conf4 <- coef + c(-1,1)*se*qt(0.975, m4$df.residual)
> conf4 <- c(conf4,coef,"4th (1879-1882)")
> coef <- mm5[2,1]
> se <- mm5[2,2]
> conf5 <- coef + c(-1,1)*se*qt(0.975, m5$df.residual)
> conf5 <- c(conf5,coef,"5th (1883-1887)")
> coef <- mm6[2,1]
> se <- mm6[2,2]
> conf6 <- coef + c(-1,1)*se*qt(0.975, m6$df.residual)
> conf6 <- c(conf6,coef,"6th (1887-1891)")
> coef <- mm7[2,1]
> se <- mm7[2,2]
> conf7 <- coef + c(-1,1)*se*qt(0.975, m7$df.residual)
> conf7 <- c(conf7,coef,"7th (1891-1896)")
> coef <- mm8[2,1]
> se <- mm8[2,2]
> conf8 <- coef + c(-1,1)*se*qt(0.975, m8$df.residual)
> conf8 <- c(conf8,coef,"8th (1896-1900)")
> coef <- mm9[2,1]
> se <- mm9[2,2]
> conf9 <- coef + c(-1,1)*se*qt(0.975, m9$df.residual)
> conf9 <- c(conf9,coef,"9th (1901-1904)")
> coef <- mm10[2,1]
> se <- mm10[2,2]
> conf10 <- coef + c(-1,1)*se*qt(0.975, m10$df.residual)
> conf10 <- c(conf10,coef,"10th (1905-1908)")
> coef <- mm11[2,1]
> se <- mm11[2,2]
> conf11 <- coef + c(-1,1)*se*qt(0.975, m11$df.residual)
> conf11 <- c(conf11,coef,"11th (1909-1911)")
> coef <- mm12[2,1]
> se <- mm12[2,2]
> conf12 <- coef + c(-1,1)*se*qt(0.975, m12$df.residual)
> conf12 <- c(conf12,coef,"12th (1911-1917)")
> coef <- mm13[2,1]
> se <- mm13[2,2]
> conf13 <- coef + c(-1,1)*se*qt(0.975, m13$df.residual)
> conf13 <- c(conf13,coef,"13th (1917-1921)")
> coef <- mm14[2,1]
> se <- mm14[2,2]
> conf14 <- coef + c(-1,1)*se*qt(0.975, m14$df.residual)
> conf14 <- c(conf14,coef,"14th (1921-1925)")
> coef <- mm15[2,1]
> se <- mm15[2,2]
> conf15 <- coef + c(-1,1)*se*qt(0.975, m15$df.residual)
> conf15 <- c(conf15,coef,"15th (1926)")
> coef <- mm16[2,1]
> se <- mm16[2,2]
> conf16 <- coef + c(-1,1)*se*qt(0.975, m16$df.residual)
> conf16 <- c(conf16,coef,"16th (1926-1930)")
>
> all2 <-
rbind(lib.meth1,conf16,conf15,conf14,conf13,conf12,conf11,conf10,conf9,conf8,conf7,conf6,conf5,conf4,conf3,conf
2,conf1)
>
> ####
> ###GRAPHS Liberals
>
> a1 <- all1
> colnames(a1) <- c("low","high","coef","V1")
> a1 <- data.frame(a1)
> a1$low <- as.numeric(as.character(a1$low))

```

```

> a1$high <- as.numeric(as.character(a1$high))
> a1$coef <- as.numeric(as.character(a1$coef))
> a1$specification <- 1:23
> a1$method <- paste("Catholic")
>
> a2 <- all2
> colnames(a2) <- c("low", "high", "coef", "V1")
> a2 <- data.frame(a2)
> a2$low <- as.numeric(as.character(a2$low))
> a2$high <- as.numeric(as.character(a2$high))
> a2$coef <- as.numeric(as.character(a2$coef))
> a2$specification <- 1:23
> a2$method <- paste("Methodist")
>
> #ggplot combine
>
> all <- rbind(a1,a2)
> lab <- c("27th (1965-1968)", "26th (1963-1965)", "25th (1962)", "24th (1958-1962)", "23rd (1958)", "22nd
(1953-1957)", "21st (1949-1953)", "16th (1926-1930)", "15th (1925)", "14th (1921-1925)", "13th (1917-1921)", "12th
(1911-1917)", "11th (1909-1911)", "10th (1905-1908)", "9th (1901-1904)", "8th (1896-1900)", "7th (1891-1896)", "6th
(1887-1891)", "5th (1883-1887)", "4th (1879-1882)", "3rd (1874-1878)", "2nd (1872-1874)", "1st (1867-1872)")
> pd <- position_dodge(width=0.3)
>
> #tiff(file = "~/Dropbox/Canada-Manuscript/Figures-Final/Figure-7.1.2.jpg", width = 8, height = 8, units =
'in', res = #200)
> #ggplot(all, aes(specification,coef, color=method,ymin = low,ymax = high)) +
> #geom_point(aes(shape=method),size=2, position=pd) +
> #scale_color_manual(name="Type",values=c("black", "gray")) +
> #scale_shape_manual(name="Type",values=c(16,16)) +
> #theme_bw() +
> #scale_x_discrete("Parliaments (1867-1968)", breaks=1:23, labels=lab,limits = c(1:23)) +
> #scale_y_continuous("95% Confidence Intervals by Religion",limits = c(-1.2,1.2)) +
> #geom_errorbar(aes(ymin=low,ymax=high),width=0.2,size=.3,position=pd)+
> #geom_hline(yintercept=0) +
> #ggtitle("Liberal Vote") +
> #theme(plot.title = element_text(hjust = 0.5)) +
> #coord_flip()
> #dev.off()
>
>
>
>

```